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IN

1922

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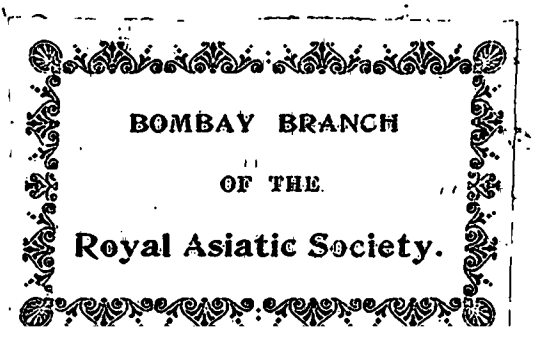

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His Excellency Sir Henry Wheeler, K.C.S.I., K.C.I.E., I.C.S.,
Governor of Bihar and Orissa.

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BY

H. C. PRIOR, I.C.S.

PATNA

SUPERINTENDENT, GOVT. PRINTING, BIHAR AND ORISSA

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Bihar and Orissa in 1922.

CHAPTER I.

Political and General Events.

The most important feature of the political history of the province in 1922 was the decline of non-cooperation. During the last few months of 1921 the activities of the non-cooperation party had created throughout the province a situation which was causing grave uneasiness. The avowed object of the movement was the paralysis of authority and the overthrow of the existing Government, and though its leaders still insisted on the necessity, for non-violence, the speeches at meetings which were being continually held in all parts of the province were generally of a most inflammatory nature, and the campaign which was vigorously conducted among all classes of the people, and more particularly among the illiterate masses, had created a condition of serious unrest. The authority of Government and its servants was openly defied; police stations were invaded by crowds who hurled abuse at the police, a munsif's office was broken into and large quantities of registers burnt, and the Sitamarhi sub-jail was for a time in a state of semi-mutiny. Magistrates were boycotted when on tour, their orders prohibiting meetings disobeyed, and the arrest of offenders was frequently made the occasion for violent opposition or noisy demonstration. In North Bihar, where there is a large European planting community, the movement had intensified racial feeling. As a result of a deliberately organized attack, Chautarwa factory in the Champaran district was burnt in broad day-light by a crowd of several thousand persons, and minor acts of incendiarism against other factories were reported. Europeans were insulted by village mobs and in a few cases were actually assaulted. The boycott of liquor shops was being vigorously and often illegally carried out. The enrolment of

Disturbed condition of the province at the end of 1921.

volunteers in preparation for civil disobedience was steadily proceeding, the proposal to start a campaign for non-payment of rent was being openly discussed, and strenuous efforts were being made to organize a complete hartal on the occasion of the visit of His Royal Highness the Prince of Wales to the capital of the province.

The threatening nature of the situation in the province, and the occurrence of serious riots under similar conditions in other provinces, forced Government to take drastic action against the movement. The storm-centres in Champaran and Muzaffarpur were proclaimed under section 15 of the Police Act, and forces of additional police were posted to these areas. Military assistance was also requisitioned and troops stationed at Muzaffarpur. To meet the threats of an outbreak of civil disobedience in selected police stations of Tirhut, and to deal with the projected hartal at Patna, Government issued on the 10th December 1921 a notification under the Criminal Law Amendment Act, declaring various volunteer associations to be unlawful, and during the next few days many arrests of non-cooperation leaders and volunteers were made in several districts of the province. It was soon evident that this action did not commend itself to moderate politicians, and that Government could not rely on their support of the notification. The acting Governor received a deputation of members of the Legislative Council who protested against the application of the Criminal Law Amendment Act, and it was decided, in deference to their wishes, to keep the enforcing of the notification under direct control. Orders were issued that no further action should be taken under the Act without previous reference to Government. At the same time instructions were sent to the jail authorities to accord special treatment to genuine political offenders, while those already imprisoned were offered their release if they agreed to refrain from further participation in the more serious items of the non-cooperation programme—such as, picketting shops or labour, promotion of hartals, recruitment of volunteers or the fostering of civil disobedience. The expected attempts at civil disobedience in Tirhut did not in fact materialise, but in spite of the action taken under the Criminal Law Amendment Act, a fairly effective hartal was organized in the bazar portion of Patna city during the visit of His Royal Highness the Prince of Wales on the 22nd and 23rd December. At the actual Darbar

Action taken by Government.

itself a large crowd of the upper and middle classes gave a cordial welcome to His Royal Highness, but in the city many of the shops were closed, few vehicles plied for hire and only moderate crowds lined the streets of the civil station along which the procession passed towards the capital. On the second day of His Royal Highness's visit the effect of the hartal organization was less marked, and the crowds were more enthusiastic and interested.

The organization adopted by non-cooperators.

At the end of the year the organization of the non-cooperation movement was still somewhat fluid and indefinite. An attempt had been made to imitate the Government system of district administration, and in theory there was in each district a district congress committee subordinate to the provincial congress committee, with subdivisional committees in each subdivision; there were also supposed to be *thanadars* at all places of importance. This organization, however, was largely on paper only, and in practice the work was done by one or two men in each district whose main activity was directed towards perfecting the volunteer organization, as this was deemed an essential agency for the further programme of civil disobedience, as well as for picketting and for enforcing the decisions of self-constituted tribunals. These volunteer associations formed the chief danger of the movement; little or no check was exercised over the type of man recruited; persons of the lowest classes and even criminals were freely enrolled. The force was entirely undisciplined, and attempts made by volunteers to execute the orders of their leaders were practically bound to result in intimidation and assault or more serious breaches of the peace.

Non-cooperators attempt to secure support of moderates.

At the beginning of the present year determined efforts were made by the leaders of the movement to secure the support of the moderates, and to rally popular opinion to their side in defence of freedom of speech and the right of association for political purposes. Attempts were made to enlist as volunteers men of a better type than formerly, who would give Government no grounds for arresting them otherwise than as members of proclaimed associations, and instructions were issued to all associations prohibiting volunteers from picketting, and from making noisy demonstrations in courts or thanas. This change of policy was, however, not by any means acceptable to a large number of adherents of the movement in the

various districts. In Bhagalpur one of the leaders who visited villages with the intention of purging associations of undesirables, was himself turned out by the villagers, while frequent instances occurred which showed that non-violence was not an attractive policy to the average volunteer. In Gaya a determined attempt was made by large bands of volunteers to disorganize the working of the courts by wholesale picketting, but this was foiled by a deputation of military police; in Muzaffarpur volunteers prevented anyone from entering the magistrate's court when he was holding a revenue sale, and though the sale was in the end satisfactorily carried through, the gentleman who opened the bidding had to be taken home with a police escort. In Purnea a sub-inspector and the local police were openly defied by one of the parties in a land dispute, and the crops were looted in their presence. In Forbesganj several hundred people attacked and demolished a pound. In Monghyr the excise superintendent was mobbed while holding inspections and a ganja shop was looted. In Muzaffarpur the salesman of a ganja shop was stabbed and robbed of his stock of cash and ganja. In Puri after arresting some volunteers at a mela, the police were immediately attacked by a crowd of a thousand, and had to take refuge in a temple, while they watched the burning down of the hut in which were the clothes and papers of the sub-inspector. In Buxar large crowds invaded the court of the subdivisional magistrate rendering the police powerless, and a few days later an attempt was made to mob the same officer when he was on tour. In Saran a factory was invaded by a mob who claimed the right to the sugarcane on communist principles. Again in Muzaffarpur the factories of some of the European planters were picketted and attempts made to prevent anybody going to work for them. In several cases crowds passed through the factory grounds shouting abuse, and in one case committing mischief. Large crowds also appeared at the Hajipur, Raghupur, and Mahua police stations and abused and insulted the police. Such are some—and the list is by no means exhaustive—of the reports that were received during January of the activities of volunteers, and they convincingly show the state of lawlessness, which was existing throughout the province.

Instances of lawlessness in January.

From February onwards the movement began to lose its strength in the province, as in the rest of India The causes of its decline throughout India have been fully examined by Professor

Rushbrook Williams in "India in 1921-22", and the causes of its decline in this province were similar to those elsewhere. The failure of the movement to achieve anything definite by the end of 1921 had caused its followers to regard civil disobedience as the only means by which its ultimate objects could be attained. The terrible outrage at Chauri Chaura on the 4th February horrified responsible opinion, and clearly showed the more moderate followers of the movement the extraordinary dangers involved in the adoption of a policy such as civil disobedience. Mr. Gandhi himself realised this, and by the Bardoli resolutions he resolved to suspend mass civil disobedience. These resolutions were perhaps an even greater shock to the adherents of the movement than the actual tragedy that had occasioned them. They were regarded as a sign that Mr. Gandhi himself despaired of any immediate attainment of the objects of the movement. It was, therefore, natural that both Mr. Gandhi himself and the movement of which he was the head should begin rapidly to lose their hold on the masses, and when the news of his arrest was received in March, though a number of meetings were held, there were few demonstrations of any kind and little popular enthusiasm. His arrest, coming on the top of the failure to obtain *swaraj* by the end of 1921 and of the Bardoli resolutions, finally shook the faith of the masses in the movement. They began to realise that the movement was purely destructive, and that its further progress was impossible without revolution. They saw that the movement as organized by Mr. Gandhi had failed, and that they were receiving no return for the money they had subscribed. Their leaders were also disheartened and uncertain as to the programme they were now to follow, and the new policy had no features likely to attract the masses.

Decline of non-cooperation from February onwards.

The general decline of the movement is reflected in the history of the province. In February instances of lawlessness were still of common occurrence. In Purnea some volunteers who had been arrested were forcibly rescued from the police by a crowd of about a thousand people. Armed police were sent the next day, and three persons were again arrested, but their trial was made the occasion of a noisy demonstration. In Muzaffarpur the police were opposed when executing distress warrants, and attacks on and abuse of

February.

Europeans were still of common occurrence. In Patna district the Minister of Education was shouted down when he went to open an agricultural exhibition. There was generally a recrudescence of picketting liquor shops, which was partly ascribed to the fact that some at least of those employed had found it a profitable pastime. In March disturbances became less common, and were practically confined to North Bihar or to districts in which either some accidental cause or the results of previous agitation furnished an occasion for conflicts with the lawful authority of Government. Such occasions occurred in the Santal Parganas, in Cuttack and Puri, and in the estates of the Rája of Kanika.

North Bihar.

In North Bihar there were several unprovoked attacks on Europeans. In Darbhanga some police, who interfered with volunteers tying up persons who had been drinking, were themselves tied up and marched into the town by a crowd of a hundred persons. In Sitamarhi there was an attack on a temporary police station in a fair. Such incidents however were far less common than they had been, and from the end of April peaceful conditions again prevailed.

Santal Parganas.

In the district of the Santal Parganas a serious situation at one time arose, and a rising of the aboriginal population was only averted by the courage and firmness of the local officers. While the subdivisional officer being occupied at Sahibganj with the strike on the East Indian Railway, the non-cooperators took advantage of his pre-occupation to preach the end of the British Raj in the inner valleys of the Damin-i-koh estate, which occupies the north-eastern side of the district. They collected bands of aboriginal volunteers, who were deluded by promises of independence, no rents, free liquor, etc., and established complete control over the Damin bazars allowing no business to be transacted without their approval. The volunteers, however, were soon dispersed on the arrival of the subdivisional officer with the armed police. In other parts of the district intensive picketting was being freely employed, and raiyats were being instructed to withhold rent. The conviction of the worst offenders under the Criminal Law Amendment Act and the infliction of adequate punishment soon restored order in this district.

In Cuttack an outbreak of incendiarism occurred in March which extended in April and May to Puri. Originally the out-

break was probably accidental, but there is reason to believe that it was kept alive by bad characters sheltering under the wing of the local non-cooperators. This outbreak was used by the non-cooperators to foment trouble between the police and the people. The police were freely accused of setting fire to houses, and though there was no trace of evidence in support of this view, several policemen were assaulted and intimidated, and the town outposts were threatened with attack. The chaukidar was suspected of being the agency by which the police organized the fires, and chaukidars generally had a bad time at the hands of the villagers; they were prevented from going on their rounds and there were frequent complaints of assault and intimidation. The outbreak of incendiarism, however, came to an end in the middle of May, and with its cessation relations between the people and the police and chaukidars showed rapid improvement.

Incendiarism at Cuttack and Puri.

In April there was a serious disturbance in Kanika. As far back as June 1921 the Raja had made himself unpopular with the non-cooperators by holding an anti-non-cooperation meeting, and in consequence a violent non-cooperation campaign was started in Kanika. As the estate is in a very inaccessible part of the district, and the people seldom come into touch with Government, the whole force of the agitation was directed against the landlord. Advantage was taken of certain agrarian disputes which were worked up into grievances; and though both the Collector and the Commissioner made careful enquiries and found those grievances largely fictitious, an organization of tenants was formed whose avowed object was to cease to pay their rents. Tenants who would not join the association of their own accord were intimidated and forced to join. Disturbances became common and culminated in a riot, when three peons who went to serve notices against some judgment-debtors were badly assaulted. In the riot case that was instituted the police met with much opposition from large crowds when arresting the accused, and finally the superintendent of police was forced to open fire, killing two men and wounding six. The Collector at once went to Kanika, where he found that the raiyats in a number of villages really believed that the British Raj had come to an end. After the display of force by the police and subsequent prosecutions had shown that order was going to be maintained the situation rapidly became quieter, but as Kanika was still in a restless state

Kanika.

it was found necessary to post a force of additional police there, so as to relieve the armed police who had been on duty in the area for the last three months. The conviction of a few prominent agitators finally completed the collapse of the non-cooperation movement in Orissa.

The occurrence of such incidents as these was, however, confined to a few districts, and from March onwards non-cooperation was having little outward effect in the province. Funds were running short, and though strenuous efforts were made to raise more, the general lack of interest in the movement and the publication of cases of defalcation in the amounts already subscribed made the task a difficult one and the efforts met with little success. Volunteers were resigning and collectors of *muthia* (handfuls of grain) were seen throwing away their collecting pots. National schools had to be closed down and parents, whose sons had left Government schools to join them, were heard freely condemning Mr. Gandhi and the movement. Such meetings as were held attracted only small audiences. District organizations were seriously hampered by lack of funds, and attempts to reorganize the boycott of foreign cloth and the picketting of liquor shops were mostly unsuccessful, as no money was available with which to pay volunteers.

Further collapse of the movement from March.

In July, when His Excellency the Governor visited Tirhut, an attempt at organizing a hartal throughout his visit received little support, though in Muzaffarpur on the day of his arrival the shops in the main street were closed. In Champaran, however, the situation was found to be so much quieter than at the beginning of the year that the curtailment of the period for which the additional police had been posted there was approved.

Visit of the Governor to Tirhut.

In August, as a preparation for the visit of the congress civil disobedience enquiry committee, attempts were again made to revive agitation. More meetings were held, and the tone of the speeches became more violent. The attendance at the meetings was still, however, poor, and lack of enthusiasm on the part of the audience conspicuous. The general trend of the evidence given before the committee was that Bihar was not yet fit for mass civil disobedience, though Muhammadan delegates

Civil Disobedience Enquiry Committee.

from Muzaffarpur and Darbhanga who gave evidence to the Khilafat enquiry committee considered their districts to be ready. Opinions were divided with regard to the boycott of the councils and Government institutions, but there was a strong body of opinion in favour of entering the councils and allowing legal practitioners who could not support themselves and their families to resume practice. Apparently, also, the view was generally expressed that the existing programme did not appeal to the masses and that more attractive feature must be found.

Attempt to raise more funds.

For the last few months of the year the leaders chiefly occupied themselves with attempts to raise funds for the reception of the congress at Gaya, while those in favour of contesting the elections made some attempts to canvass for votes, but the movement no longer attracted any great amount of attention and the condition of most districts was peaceful.

The effect of the Kemalist victories.

Political interest was transferred to the Near East and agitation was chiefly concerned with the Khilafat movement. The successes of the Kemalist army in Asia Minor aroused great excitement and enthusiasm among all Muhammadans, and celebrations of the victories were general in almost all districts of Bihar. There is little doubt that if events had taken a wrong turn in Europe, the situation would have become extraordinarily difficult. The passing of the crisis in November was welcomed by most Muhammadans with relief, though there were some who regretted the removal of an attractive topic for agitation. The strength of feeling on this question was again shown at the Gaya congress, when news was received that negotiations at Lausanne had broken down and that war was imminent. Police officers who were attending a meeting hastily convened by the Khilafat party were abused and turned out of the compound, and a resolution was passed authorising the commencement of civil disobedience in the event of a war between the Allied Powers and Turkey.

Visit of the Viceroy to the province.

The Viceroy visited Patna at the beginning of December. The various functions were well attended, but the crowds lining the streets during his visit to the city made no great display of enthusiasm. A suggestion had been made for the organization of a hartal, but the non-cooperators were apparently

unwilling to have their attention diverted from the Gaya congress arrangements, and were probably doubtful of their ability to organize it successfully. Consequently at a meeting held to consider the proposal, the question was ingeniously avoided by the suggestion that a Viceroy's visit was not of sufficient importance to warrant a hartal. The visit, as a matter of fact, was eminently successful and had a good effect.

The Gaya Congress.

At the Gaya congress the most important question was the policy of contesting the council elections. The congress rejected by a large majority the proposal to alter its programme so as to allow members to contest council elections, but this decision was followed by the formation of a strong minority party within the congress, which formulated a programme of which two of the main features were to contest municipal and district board elections, and to make preparations for contesting the council elections at the end of the year. The majority of the congress, on the other hand, was unable to put forward any new programme, and, in spite of the fact that the committee appointed by the last congress had entirely failed to come to any definite finding on the subject, reasserted the policy of civil disobedience as being the only means by which to attain their ends and called on all congress members to take immediate steps for the collection of 25 lakhs for the Tilak Swarajya fund and for the enlistment of 50,000 volunteers. Most of the delegates from this province supported the views of the majority, but the lack of interest which is being generally displayed in nearly every district of the province, and the general distrust of civil disobedience as a practical programme makes it doubtful whether this policy will again be able to attract any large measure of support from the general population.

Non-cooperation in the Feudatory States.

In the Feudatory States of Orissa non-cooperation had little effect, and there was general freedom from any outward sign of political agitation in sympathy with the movement in India. Agitators who made their appearance in some States were promptly dealt with, and only in Keonjhar and in Kharsawan were there any attempts at disturbance. In the former States some mal-contents in May 1921 tried to inflame the people against the administration without any success, and the ringleaders were arrested and imprisoned. In Kharsawan in January 1922 a mob made an attempt to rescue a non-cooperating foreigner from the

State jail, but were dispersed by the local police, and the imprisonment of the ringleaders and strict police measures throughout the State restored peace and order.

The general atmosphere of unrest which was engendered by the non-cooperation movement was bound to react on labour, and the year was marked by a good deal of industrial unrest. In February an extensive strike occurred on the East Indian Railway which affected the working of the railway in this province up till the beginning of May and caused considerable dislocation of trade. The strike was largely organized by political agitators, and such economic grievances as there were were not brought out until the strike had lasted several weeks. The strike was accompanied by a certain amount of violence. At the beginning of the strike intimidation was frequent, trains were held up, and sabotage attempted. The arrival of the Gurkha military police, followed by some prosecutions, had, however, a good effect, and the subsequent posting of military at various stations, along the line, prevented any further serious disturbances. The deliberate wrecking of the Punjab Mail in April, and subsequent abortive attempts to blow up a bridge on the Grand Chord line and to wreck a train by placing ballast on the line—all of which were almost certainly the work of dismissed strikers—showed that there was at any rate a section of strikers who had no regard for human life or property.

Strike on the East Indian Railway

Another large strike occurred in September at Tata's Iron and Steel Works at Jamshedpur, where thirty-nine thousand out of the forty thousand employees of the company struck work. Certain economic grievances were put forward by the strikers, chiefly based on the allegation that labour was not getting its fair share of the profits of the company, but the real cause of the strike appears to have been the desire of the labour association to try their strength against the company. This association had gradually been losing its hold on the workmen. They were dissatisfied with it for postponing a strike earlier in the year, and the feeling was growing up that it was giving very little return for their subscriptions. The association therefore attempted to rehabilitate itself by a successful strike. The strike was, however, indecisive, and after lasting about a month came to a somewhat

and at Tata's Iron and Steel Works.

unexpected end. The strikers went back to work without any definite improvement in terms, but without the reduction in wages which had been threatened by the management. A noticeable characteristic of this strike was the absence of violence and lawlessness. This was largely due to the immediate concentration of a strong force of military and police, and to the fact that the Deputy Commissioner made it quite clear to the strike leaders that no lawlessness or incitement to violence would be tolerated. At the same time it was clearly pointed out that the force had been concentrated only to maintain law and order and with no intention of breaking the strike.

Other strikes.

Several other less important strikes were reported at various times throughout the year. A strike at the Government press in February was only important because it occurred at a time when the press was engaged in printing the budget, and consequently caused considerable inconvenience to members of council, who did not receive their copies of the budget as early as intended. Strikes on the Bengal Nagpur Railway, at the Hume Pipe Company's factory at Sakchi, and at Arthur Butler's at Muzaffarpur were of short duration and little importance.

The Bakr-id and Muharram.

The general spirit of unrest throughout the province caused some apprehension that the Bakr-id or the Muharram might be utilized as occasions for organizing disturbances. These fears were however falsified. In spite of several critical situations that arose, the Bakr-id passed off peacefully and though during the Muharram faction fights were reported from one or two places, and trouble was narrowly averted at others, no serious disturbance occurred.

The Tana Bhagat and Unnati Samaj movements in Chota Nagpur.

In Chota Nagpur there have been in existence for some time among the aboriginals two movements known respectively as the Tana Bhagat movement and the Unnati Samaj. The former, which was in origin purely religious and confined chiefly to the Oraons, aims at substituting new doctrines and rules of conduct for the old animistic religion of the people. The latter is a movement, organized by Lutheran Christians among the Mundas, which aims at the moral and social improvement of their class. The two movements were

entirely separate and distinct, but during the year, under the influence of the non-cooperation movement, both adopted an attitude which was antagonistic to the landlords and distrustful of Government. The Unnati Samaj attempted to organize by means of panchayats a powerful body which would force Government to introduce certain agrarian reforms, and held meetings at which resolutions dealing with such subjects as the charkha, temperance, independent schools and the decision of petty cases by panchayats were passed, while the Tana Bhagats concentrated on the establishment of panchayats. The dangers of unauthorised panchayats were forcibly illustrated by a serious riot which occurred in June in connection with the Tana Bhagat movement in Sisai police station in the Ranchi district. An Oraon was fined by a panchayat of Tana Bhagats, and when he refused to pay the fine was seriously assaulted and confined in a house. A case was instituted by the police but the panchayat leaders refused to be arrested, and a serious fight occurred between the police and the Tana Bhagats in which both sides were armed with lathies, but in which the police, though heavily outnumbered, were successful. The strong action taken by the police in this case showed the aboriginals that Government was still in existence and the two movements again disassociated themselves from non-cooperation influence. They still continued to hold meetings, but these were confined to the legitimate objects of religious and moral improvement, and during the remainder of the year neither of the movements had much connection with politics.

The anti-Gwala movement.

Another social movement which had little or no concern with non-cooperation attracted a good deal of attention towards the end of the year. In Patna district there had been for some time friction developing between the Gwalas and the other Hindus. The Gwalas asserted their right to wear the sacred thread, refused to do any *begari*, to sell their produce at privileged rates or to allow their women folk to go to the bazars to sell milk. The first claim was strongly resented by all the other classes of Hindus, while the landlords strongly objected to the refusal of *begari* and of privileged rates. An *anti*-Gwala movement was therefore formed. The object of this movement was purely retaliatory, and in pursuance of its objects Gwalas who refused to sell milk in the bazar were to be deprived of the services of barbers,

washermen and midwives, and were not to be allowed to graze their cattle on the zamindars' waste lands. This opposition only served to make the Gwalas more determined than ever. Feeling between the two parties began to run high, and in the latter part of November, when some zamindars refused to allow the Gwalas to hold a meeting in their village, a serious riot was with difficulty averted. The boycott of Gwalas was still continuing at the end of the year: several minor riots have occurred, and it is not yet clear how the question will be finally settled.

Changes in the Government.

During the year there have been several changes in the Government. At the beginning of the year no permanent appointment had been made to the Governorship which, towards the end of 1921, Lord Sinha had unfortunately been compelled by ill-health to resign, and Sir Havilland LeMesurier, the senior member of the Executive Council, had assumed the Governorship and was acting in that office. He continued to hold charge till the end of the cold weather, when Sir Henry Wheeler was appointed and took over charge on the 12th of April. Towards the end of the year, on the final retirement from the Civil Service of Sir Havilland LeMesurier, no appointment was made to fill the vacancy thus caused in the Executive Council, and the constitution of the Council was permanently reduced so as to include only the Governor and two Councillors.

Method of appointment to the Provincial Civil Service.

An important alteration has also been made in the method of recruitment of officers of the Provincial Civil Service. Previously Government used to appoint such officers on the recommendation of divisional committees, the members of which were the Divisional Commissioners and the various District Magistrates in the division. Appointments are now made upon the recommendations of a selection committee, consisting of two officials and three non-officials. In order to maintain the correct balance between the various communities the Governor still retains in his hands the appointment of a small proportion of the officers required each year. The prospects of the provincial service have also been improved, as the number of superior posts to which persons not being members of the Civil Service may be appointed has been increased. It was also announced during the year that one

post of District and Sessions Judge would be filled by recruitment from the bar, and the appointment has since been made.

This chapter has been largely occupied with a brief account of the decline of a movement which attempted to paralyse Government in all departments, and in the following chapters will be found frequent references to the manner in which the agitation has impeded progress in the various departments of Government. It must however be remembered that the movement, though it has declined, is still existent; and the resolutions of the congress show that it is still attempting to complete an organization with a view to opening a campaign of civil disobedience. The history of last year shows the danger which will be involved, and it can only be hoped, that the commonsense of the majority of the people will render futile any such misguided effort.

CHAPTER II.

Finance.

THE financial difficulties of Bihar and Orissa are now well recognized and frequent mention was made during the year in the debates in Council of the poverty of the administration, which has been one of the governing features of the year. Lest, however, there still be some who imagine that the alleged poverty of the Government is no reality, it may be advisable to compare briefly the financial position with that of the two neighbouring provinces.

The poverty of the administration.

Bihar and Orissa has a population of 34 millions and an income of 4½ crores, Bengal a population of 46½ millions and an income of 11 crores, and the United Provinces a population of 45 millions and an income of 10½ crores, after deducting their contribution to the central Government. The amount, therefore, available for expenditure per head of population is in Bihar Re. 1-5-2 and in Bengal and the United Provinces Rs. 2-5-4 each. Although the areas of both Bengal and the United Provinces are larger than that of this province, it is clear that financially they are considerably better off, and yet they are by no means the richest provinces in India, and Bengal particularly is continually complaining of its poverty. It is therefore natural that these two provinces should have amounts of money far larger than in this province available for expenditure on transferred subjects, and each of them is able to expend on education, sanitation and medical relief, a sum that works out at six and a half annas per head of population, whereas in this province the amount available is only three annas per head of population. It is not however only the transferred departments which are financially handicapped, and reserved subjects are affected in practically the same proportion. In Bengal the expenditure on police is six and a half annas per head of population, and in the United Provinces six annas, but in Bihar where presumably the task of protecting the population is little, if any, easier than it is

Compared with other provinces.

in the United Provinces, the expenditure is only three and three-quarter annas per head; on general administration, law and justice Bengal spends eight and a half annas per head, the United Provinces seven and a half, and Bihar four and three-quarter annas. From these figures it will be seen that in every branch of Government, reserved as well as transferred, this province spends much less than its neighbours, and that this low rate of expenditure is compulsory, owing to the small amount of revenue that is available for expenditure per head of population.

The effect of the Permanent Settlement.

In this connection the effect of the permanent settlement is relevant. Land revenue is the chief source of provincial income and the permanent settlement covers at least seven-eighths of the land revenue of the province. The revenue fixed under the permanent settlement is about ten or fifteen per cent. of the rental assets of the land, while the present standard is fifty per cent. The consequence is that the income derived by the State from land revenue is only one and a half crores as opposed to four crores which it would be if the permanent settlement could be increased up to modern standards, and the balance is left in the hands of the people.

Agricultural and mineral resources.

In connection, too, with the often alleged poverty of the people of the province, other facts are to be borne in mind. The province contains one of the most fertile tracts in India, the Gangetic plain. The pressure of population on this tract is admittedly high, but the recent rise in the price of agricultural produce has been all in favour of the cultivators, whose economic position is now probably better than it ever has been before. The province also contains very extensive and very valuable mineral deposits, which are being rapidly developed, and large industrial concerns are being established for working these raw materials. Though the capital employed in these industries does not necessarily belong to the province, they employ a large labour force at high wages, and so add considerably to the wealth of another class of the people of the province.

There are two means by which the financial position of the province can be improved, first, by retrenchment of existing expenditure, and secondly, by increased taxation. Both means have

been examined during the year. A retrenchment committee was appointed at the end of 1921 and has only recently submitted its report, which is still under the consideration of Government, and it is not yet known what savings will be effected as the result of its recommendations. Retrenchment however cannot be carried beyond a certain point without loss of efficiency, and the expenditure of the province is already so low that it is likely that such economies as are found to be practicable will only improve to a very limited extent the financial position of the province.

The Retrenchment Committee.

The chief hope of material improvement lies therefore not in retrenchment, but in increased taxation. This has been recognized by the members of the Legislative Council during the year, and they have sanctioned an increase in the fees to be charged for registration and in the court-fees payable for civil and criminal litigation.

Increased taxation.

The increase in fees in both cases was easily justifiable. The scale of fees charged under the Court-Fees Act had remained practically unchanged since 1870, the year in which the Act had been passed, and though the income per head of the population had increased very considerably since then, and though the expenses of litigation generally had also largely risen, Government still received the same amount as before. The increase also was not peculiar to this province as almost all the other provincial councils have made use of this method of increasing their revenue. Increase in taxation is always unpopular and it is a hopeful sign that the elected members should realise the necessity and undertake the responsibility of imposing it. This increase, however, will fall largely on landlords and tenants, and will not touch to any very large extent the large industrial concerns that exist in the province.

The increase justifiable.

These industrial concerns which depend for their existence very largely on the vast mineral resources of Chota Nagpur at present contribute only in a small degree to the finances of the province, and the question of the means by which a larger share of their profits may be secured without injustice for provincial revenues has been receiving the attention of Government during the past year. As was shown last year, under the Income-Tax Act the tax

is paid in the province which contains a firm's "principal place of business", and most of the big industrial concerns of the province have their head offices in Calcutta or Bombay, and so pay no income-tax on their profits in Bihar. It has now been decided that the Income-Tax Commissioners of the various provinces shall settle between themselves the province in which the income-tax of any particular firm shall be paid, and if they fail to come to an agreement the case is referred to the Government of India for orders. It is expected that as a result of this order arrangements will be made for the payment of income-tax in Bihar and Orissa by a number of business firms which now pay income-tax elsewhere and thereby an appreciable increase of revenue will be secured, though it must be remembered that under the present rules governing the disposal of income-tax, this increase will not all go to provincial revenues but will be shared with the Government of India.

Income-tax on industrial concerns.

There is another more direct manner by which it is hoped to be able to increase provincial revenue from the mineral resources of the province. The bulk of the iron ore in British India is in estates which are the property of Government, and throughout last year discussions have taken place between various companies and Government as to the form and manner in which the State should take its share of the profit from minerals. Though this question was still unsettled at the end of the year, a satisfactory solution seems to be in sight.

At the time however when the budget for 1922-23 was introduced into the Council the Financial Secretary was only able to give a very gloomy account of the financial position of the province. On the 31st March 1921 the provincial balance had been a little more than a crore of rupees, but the estimates anticipated a withdrawal of Rs. 40 lakhs at the end of the year 1921-22, and in spite of the strictest economy and control of expenditure the original budget for 1922-23 allowed for an excess of expenditure over revenue of fifty-three lakhs and a closing balance at the end of the year of only seven lakhs.

Financial position in 1922-23.

The financial position disclosed by the budget gave rise to widespread uneasiness in the Council, and probably the reason which

led some members to complain of the small measure of financial control that has been given to the Council under the reformed constitution, and that induced other members to criticize the Ministers for not securing a larger proportion of the provincial revenue for expenditure on transferred subjects. Neither of these complaints or criticisms appear to be justified. The non-voted items which are covered by section 72 D of the Government of India Act are composed of such items as interest and sinking fund charges on loans, expenditure which is prescribed by or under any law, and salaries of High Court Judges and persons appointed by the Secretary of State. These items amounted only to one crore out of a total budget of five crores and, though members are not allowed to bring forward motions for reduction of any of these items, they are entitled to discuss them in the general budget debate and bring forward resolutions on any day set aside for private business recommending to Government the future alteration of any of these demands. With regard to the remaining four crores, members could bring forward such motions for reduction as they pleased. In the case of transferred subjects the expenditure on which amounted to one and a half crores such reductions are final, and though in the case of reserved subjects the Governor has power to restore any amount reduced, the power was not used during the year. The charge against the Ministers was equally unfounded, for the limits imposed by the Finance Department influence them as much as the reserved departments, and it is impossible for either to get allotments of money when there is no money to allot; but the Ministers were able to show that out of eleven lakhs that were left unallotted when the budget was originally framed, they had persuaded Government to allot to transferred subjects eight lakhs.

Non-voted items.

Reserved and transferred subjects.

The general discussion on the budget followed the usual lines. The increase of five lakhs in the expenditure on the police was severely criticized, there were the usual complaints against revenue being secured from excise and the usual failure to understand how Government could get more revenue out of less consumption, but most insistent was the demand for larger allotments for the transferred subjects. There were in all 131 motions for reduction of demands, but members generally accepted

General discussion on budget.

the explanations of Government as to the necessity for the demands, and a very large proportion of the motions were withdrawn.

Reductions made and suggested.

The total reductions that were passed amounted to only just over one lakh, though in addition to this, as a result of the discussion on motions which were withdrawn, Government subsequently made further reductions amounting to just over half a lakh. The dislike to spending money on buildings found expression in a reduction of Rs. 20,000 in the demand for buildings for the Forest Department, and in a proposal, that was withdrawn, for omitting the grant for a house for the Deputy Director of Agriculture. Distrust of the extravagance of most officials accounted for a number of motions for reducing demands on contingencies and minor works. A reduction of Rs. 25,000 in the demand for additional police showed the general dislike of the Council to the policy of appointing them, while the total omission of the demand for a detective training school showed that the Council had little confidence in the powers of the police to improve by instruction in crime detection. A motion for reducing the general demand for irrigation by two lakhs was only defeated by one vote, and a motion for omitting the lump grant for physical education was similarly defeated by only a small majority. A further attempt was made, though the motion was lost, to postpone the Orissa settlement, and another motion to omit the demand for the revision settlement in the Santal Parganas allowed the landlords in the Council again to show their opposition to settlement policy. A motion for a nominal reduction in the High Court as a protest against the working of its administrative side was passed.

The necessity for supplementary demands.

All the supplementary demands that were put before the Council throughout the year were passed, but complaints were frequently made, especially when voting supplementary demands for the police, that the expenditure ought to have been foreseen and included in the original budget. There are two alternative methods in which a budget can be prepared; it can be framed so widely that there will be subsequently no likelihood, except in very unforeseen circumstances, of having to come forward with supplementary demands, or it can be drawn up in the manner in which this year's budget was drawn up. The budget was framed with very great care, and only such expenditure as it was known

would be incurred was included, but a reserve of thirteen lakhs was left unallotted, partly in case excise revenue should fall even lower than the modest sum at which it had been estimated, and partly to meet such supplementary demands as were bound to occur. This second method is far more likely to lead to economy than the first, as it makes it necessary to come to the Council for a supplementary demand on every occasion on which unexpected expenditure has to be incurred.

The desire for fixed percentages of increased taxation for transferred subjects.

Mention has been made above of the increased taxation sanctioned by the Council. Both in the debates when the legislation was being considered and in a subsequent resolution some members attempted to get a declaration from Government that a certain fixed portion of the increased revenue should be set aside for education and medical relief. Government promised to do what they could but it was obviously impossible for them to make any declaration. In the first place it is uncertain whether, even with the increased revenue obtained from these taxes, it will be possible to balance the budget; the probability is that in the coming year it will be possible, but as the revenue of the province depends to a very large extent on excise which must, even without political agitation, be a fluctuating source of revenue, there is no certainty that it will again be possible in future years. Secondly, the making of any such declaration would in effect be establishing a separate purse for transferred subjects, and would therefore trench on the constitutional powers of the Local Government in matters financial, making a constitutional alteration that cannot be sanctioned without Parliamentary authority. With every wish to recognize the popular wishes in respect of education and medical relief, and to do everything that is possible to increase the allotment of funds for these objects, it is impossible for Government to bind itself or its successors to give a specified sum every year to those objects.

Improved financial position at the end of the year.

At the end of 1922 the financial situation of Government had happily shown signs of material improvement. In the first place the provincial closing balance at the end of the year 1921-22 was thirty-two lakhs more than anticipated, due partly to the fact that revenue yielded more than was originally anticipated, and partly to decreased expenditure. Besides this, revenue came

in remarkably well during last year, the receipts from excise being likely to be twenty-three lakhs more than was originally estimated; the increased taxation sanctioned by the Council accounts for a probable increase of six lakhs under stamps and three lakhs under registration, and owing to the increase in canal rates irrigation has also contributed more than was expected.

Increased revenue.

The improvement in the position is, however, not only due to an increase of revenue; expenditure also has not been up to the budget provision. In examining the reasons for this decrease in expenditure it must be remembered that of the estimated expenditure thirteen lakhs was set aside as a reserve in case excise revenue did not come up to expectations and also to meet supplementary demands. If this sum is excluded, the revised estimate of expenditure chargeable to revenue is four and a half lakhs less than was originally budgetted for. Part of this short expenditure is due to the stop put on agricultural expenditure by the Council, part to savings in jail administration owing to the continued abnormally small number of prisoners, and part to the failure of the public works department to spend up to the budget allotment.

Decrease in expenditure.

The result however of this increase of revenue and decrease in expenditure is that no withdrawal will have to be made at the end of 1922-23 from the accumulated balance of the province. It is also hoped that in future years it will be possible to balance the budget, and even to finance from current revenue some of the more pressing schemes involving recurring expenditure that have lately been held up for lack of funds, and that the accumulated balances will only be used in financing items of non-recurring expenditure.

This improvement in the financial position does not mean that the province will be able to launch out into any very ambitious schemes. Its total estimated revenue is still only Rs. 4,98,33,000 or Re. 1-7-5 per head of population, and still compares very unfavourably with that of other provinces. It still has to meet the difficulties caused by its past attachment to Bengal. It still has no University buildings, no Medical College and no Veterinary College, and it is still faced with the prospect of heavy initial expenditure for the provision of these; and though the promised donations of subscribers to the Prince of Wales' Visit Fund, which

The future provincial position.

amounts to nearly eight and a half lakhs will assist in the establishment of the Medical College, the balance at the credit of the province is by no means sufficient for the capital expenditure that is required. The expenditure on reserved subjects cannot be decreased beyond a certain minimum; the police and law courts are to be maintained, and they are both expensive; land revenue must be collected, and therefore there must be a staff to collect it. Consequently out of the present provincial revenue there is a definite limit beyond which funds cannot be made available for transferred subjects, and if schemes such as free and compulsory primary education, the cost of which is estimated at one crore, or full and adequate development of sanitation and protection from epidemic disease, are to be proceeded with, further resources will have to be found.

CHAPTER III.

The Legislative Council.

THE Legislative Council is the leading feature in the new structure of Government set up by the Reforms Scheme, and the success of the new system will depend on the development in the Council of a sense of responsibility and on the manner in which it makes use of the large powers with which it has been vested. The record of its achievements, and the discussions during its debates form, therefore, a most interesting part of the history of the province in 1922.

Sessions of the Council.

Three sessions of the Council were held during the year, of which two, the fourth and sixth, were held in Patna and one, the fifth, at Ranchi. Most of the important legislation of the year was passed in the fifth session, though some non-official members protested that the consideration of major measures ought not to be taken up at Ranchi, on the ground that it was difficult for members to attend the meetings there. There was, however, no substance in the objection, as the actual figures on divisions at the Ranchi session showed an average of fourteen more members voting than in the previous session at Patna. In the course of the three sessions the Council held forty-seven meetings of which fourteen were partly or wholly devoted to non-official business. There has been some criticism that Government did not allot, during the year, more time for non-official business, but, as His Excellency pointed out in the address with which he inaugurated the Ranchi session, legislation and finance are the main questions with which the Council is concerned, and therefore they must take precedence of non-official business—which practically means the moving of resolutions. These may direct the attention of Government to the advisability of modifications of policy, but they are, from the constitutional point of view, mere recommendations, and should not take up time which is required for the discussion of proposals to which the assent of Council is constitutionally necessary. Moreover, in comparison with the House of Commons, the number of resolutions debated is

Time devoted to non-official business.

noticeably large. As a matter of fact figures obtained from the other provincial councils show that the amount of time allotted to non-official business was in most cases proportionately less than the time so allotted here.

The President and Deputy President.

During the first two sessions of the year the Hon'ble Mr. Sachchidananda Sinha, Member of the Executive Council, also acted as President of the Legislative Council, and at the beginning of the autumn session the Council elected Khan Bahadur Khwaja Muhammad Nur to be Deputy President—in succession to Mr. Hasan Imam, the first Deputy. At the last meeting of the autumn session the President announced that His Excellency had decided that with the reduction of the membership of the Executive Council to two, it was impossible any longer for one to combine the duties of President of the Council, which must, in future, be discharged by a whole-time officer. During the recess Khan Bahadur Khwaja Muhammad Nur, a non-official elected member of the Council, was appointed President, and in his place the Council elected Rai Bahadur Prithi Chand Lal Chaudhuri as Deputy President. A unanimous resolution of satisfaction and gratitude to His Excellency for the appointment, which was passed by the Council, expressed not only their appreciation at the election of a non-official, but also their satisfaction at the choice that was made. Among the elected members there were few changes. There were only four by-elections, and of these two were uncontested, and in the remaining two the contests were chiefly personal and were not based on the merits or demerits of any political programme. The ultimate success of any system of representative government depends on the political education of the electorate, but though the next general elections will be held in the latter part of this year, there are as yet few signs that any party in the Council is attempting to put forward a political programme or to conduct any electoral campaign in the constituencies.

By-elections.

Reasons for questions that were asked.

The number of questions answered during the year was 642 against 1,241, in the previous year. Some were obviously asked with the perfectly legitimate object of obtaining information which was required in connection with resolutions or legislation which were under, or about to come under, consideration by the Council, or which would serve

as a basis for subsequent suggestions for alteration in the policy of a particular department. Some were asked with the obvious intention of calling the attention of Government to a grievance which the member considered to require remedy. Some sought to obtain information on the action being taken by Government on the reports of various committees, and though some of these showed that members failed to realise the amount of work that was necessary before proposals, based on those reports, could be formulated, the questions reminded Government of the importance which members attached to such subjects as retrenchment and the separation of executive and judicial functions. But there were besides these a large number of questions which appear to have served little or no useful purpose.

Reference to published reports in replies.

In answering some of the questions Government referred the members to the annual reports of Heads of Departments, where the information asked for was available, and this procedure seems reasonable. The reports are all published, and the members can see them in the Council library or purchase copies for their own use. It throws a heavy burden of labour and expense on the secretariat and Council staff, if they have to compile such information from published reports.

Resolutions relating to law and order.

On the fourteen days on which private business was conducted thirty-four resolutions were discussed, of which the most important were those relating to acts of the executive in the administration of law and order. The system of dyarchy has provided that certain subjects shall be classed as "reserved" and that the control over and responsibility for them shall be vested in the Governor in Council and not in the Ministers. The control that the Legislative Council has over these subjects is first, the power that is given to it to veto or reduce the budget demand in respect of any reserved subject, though this power of veto is subject to the Governor's right of certification, and secondly, its advisory power to pass resolutions making recommendations regarding reserved subject. The resolutions so passed, though constitutionally not binding on the Government, have weight as being the deliberate opinion of the elected representatives. Amongst the most important of the reserved subjects are the administration of law and order, and the control and management

of police and jails. During the year six resolutions on these subjects were debated; of these two were passed and three rejected by the Council, while one was withdrawn by its mover.

Resolution on the notification under the Criminal Law Amendment Act

Of the two that were passed, the first was a resolution recommending to Government that the notification under the Criminal Law Amendment Act, declaring certain volunteer associations to be illegal, should be withdrawn, and that all those persons who had been convicted under that notification should be immediately and unconditionally released. The reasons that led to the issue of the notification have already been discussed in Chapter I. In the course of the debate Government gave a full reply. They adduced the reasons that had forced them to issue the notification, they explained that they had already offered release to all prisoners under the Act who were willing to give an undertaking to refrain from picketting shops and labour, from promoting *hartals*, from recruiting volunteers and from fostering civil disobedience, and they undertook to submit the records of all cases in which persons had been imprisoned under the Act to a Judge of the High Court in order to make certain that the convictions and sentences were in accordance with the law. Farther than this it was not possible for Government to go; nevertheless, in a heated debate extending over three days, nearly all the non-official members supported the resolution which was carried without a division.

and on the disturbed state of Champaran.

The other resolution that was passed recommended to Government the immediate appointment of a committee to consider the disturbed state of the Champaran district. The debate on this resolution was full of personal attacks, in particular on European planters, and the mover and a number of his supporters based their demand for an immediate enquiry on the levying of *abwab*, which, however, they admitted, had not been taken after the orders on the report of the Champaran Agrarian Committee. No attempt was made to show that any real grievances still existed nor were any terms of reference suggested for the proposed committee. In reply, Government called attention to the dearth of facts adduced by the supporters of the resolution, and pointed out that the only problem causing any difficulty in Champaran at the moment was the question of grazing rights, which was difficult

of solution in view of the legal rights possessed by the landlords. Government was itself holding a full enquiry into this question, and until that enquiry was finished the appointment of a committee would be premature. The non-official members were not satisfied by these facts and arguments, but were evidently carried away by the vague generalizations of the mover and his supporters, and the resolution was carried by twenty-one votes to thirteen, only three non-official members voting on the side of Government. The resolution that was withdrawn was a recommendation that Government should consult the Council before extending the provisions of the Seditious Meetings Act to any part of the province.

Resolutions on political subjects that were lost.

Of the resolutions that were rejected, the first was one for the appointment of a committee to consider the alleged grievances of political prisoners in jails. Government pointed out that no real grievances existed and that the maintenance of discipline in jails was absolutely essential: the resolution was defeated by twenty-seven to twenty. Another was a resolution to cancel the order for the levy of compensation paid to the Chautarwa factory in the Champaran district under section 15A of the Police Act. In contrast with the connected resolution of the previous session, this was defeated by a majority of votes. The third was a resolution to appoint a committee to consider the disturbances in the Kanika estate and the action taken by Government in that connection. On this latter resolution most of the non-official members from Orissa supported the action of Government.

The disposition of the Council shown by these resolutions.

A study of the debates on these resolutions shows that there are still some members who are unduly distrustful of the executive. They will not be satisfied with the reports of the Government officials on the spot, but allege these to be misleading. There is a strong tendency to hold that the appointment of a committee is the panacea for all evils and to insist that even in purely administrative matters Government should share their responsibility with the Legislative Council. On the other hand Government have made their position clear; they welcome the advice of the Council, even in administrative matters, and are ready to give due weight to it. But the responsibility for the administration of law and order

rests, under the constitution, on the Governor in Council and Government cannot shirk it by acting on the advice of the Council, nor can they give any assurance that they will always consult the Council before taking action. They receive reports from their officers, and if these show the necessity for taking certain action, it is the duty of Government to do so. It is perfectly legitimate for the Council to discuss the action so taken by bringing forward resolutions, but Government would not be justified in complying with the terms of these resolutions, unless in the course of the debate fresh facts or arguments were produced which showed that the reports of the Government officials were mistaken or incomplete, or that Government itself had misread the situation or misinterpreted the law.

The position of Government with regard to them.

There was a tendency on the part of non-official members to give alarming and, as the results proved, mistaken forecasts of the disastrous results that were likely to attend Government action. It was stated, for example, that if the notification under the Criminal Law Amendment Act were not at once withdrawn, the result would be an increase in disturbances; the notification was not withdrawn and, as has been shown above, the number of disturbances rapidly diminished. It was stated that if the collection of compensation for Chautarwa factory were proceeded with, there would be general resistance and disturbances; the collection was made and no disturbances took place. Speeches were too often confined to criticism and in some cases personal criticism of a type which bordered on the libellous.

Tendencies shown by some members.

Apart from the resolutions already described, one other was moved and passed which developed into a political attack on Government. This was the resolution recommending that the notification declaring the Santal Parganas to be a backward tract should be withdrawn. It might have been expected that the mover or his supporters would have endeavoured to show that the district had made such economic progress, and such an advance in education that its designation as a backward tract was no longer justified, and that the inhabitants themselves wished for the withdrawal. But little attention was paid to this aspect of the

Resolution regarding Santal Parganas.

case. The Council laid more stress on distorted accounts that had appeared in the local papers regarding the action taken by the Deputy Commissioner to restore order, when agents of the non-co-operation party had made a definite attempt to alienate the aboriginals from their allegiance to Government. Although it was clearly shown by Government that the action taken by the local officers was fully justified, the resolution was carried by a majority.

Resolutions on subjects other than political.

Resolutions, other than political which were adopted, covered a large range of subjects and were characterised by a greater grasp of financial and practical limitations than was the case in the previous year. Most of these resolutions will be considered in discussing the various departments to which they refer, and it is unnecessary to refer in detail to them here. Special motions of appreciation of the services of Mr. Montagu, as Secretary of State, and of Sir Havilland LeMesurier in the many offices which he filled during his long service, were unanimously passed. There was a recommendation for the establishment of a committee to consider the reorganization of the medical and public health departments, and another to appoint a committee to enquire into the embankment system, and though Government refuted the arguments of the movers of these resolutions that nothing had been done during recent years for the development of either of these subjects, the opinions of a committee might at an appropriate stage be valuable. They are both subjects, however, which present various technical, financial and other difficulties, and until in the case of embankments expert information, and in the case of medical and public health the opinions of local bodies, have been collected, the formation of committees would be premature. There were resolutions which emphasized the dislike of the Council to spending money on bricks and mortar. Government accepted the principle that type plans for dispensaries need not necessarily be followed by local bodies, and agreed to try, if possible, the experiment of getting private contractors to build residences for public servants. A resolution recommending Government to take early steps to provide trained *dais* (nurses) in rural districts called attention to the difficulty of training such persons and emphasized the importance of activities, such as the maternity scheme recently started in Patna. At the same time, however, it was recognized that financial considerations might make it difficult to devise a scheme applicable throughout the

province, while some of the speeches, though admitting the importance of the subject, showed doubts as to whether expenditure for this purpose would be justified, when money was not available for other medical objects. The popular feeling in favour of the Ayurvedic and Unani schools of medicine found expression in a resolution to recognize the medical department with a view to affiliate the ancient systems of medicine, but the resolution was withdrawn after Government had explained what was already being done to encourage students of these systems. The economic importance to the country of cattle was recognized in a resolution asking the Government of India to appoint a committee to consider the whole question of the protection and prevention of the export of cattle; and the interests of the depressed classes were considered in a resolution recommending Government to appoint a representative of them in all district boards and municipalities. This last resolution was accepted by Government, and representatives have already been appointed in all municipalities in which recent elections have taken place.

Resolutions on railway affairs.

Railway affairs attracted a certain amount of attention. Government were asked by a resolution to take early steps to induce the railway company to provide shelters at Khurda road station for pilgrims going to Puri, and though there was a tendency among the supporters of this resolution to forget that Government had no power to order the railway company to provide such shelters, the resolution obviously called attention to what was regarded as a definite grievance requiring remedy. After the railway accident at Raxaul various questions were asked to obtain information as to the cause of the accident and as to the safety of other bridges on railways. Such questions serve a useful purpose in calling the attention of the various railway companies to the fears expressed by the travelling public.

Resolutions on judicial affairs.

There was a resolution asking for the appointment of Sessions Judges from the bar at as early a date as possible in accordance with the recommendations of the Public Services Commission. Government accepted the principle and promised to give effect to it as soon as this could be done without injuring the prospects of the present members of the Civil Service. To the extent of one appointment this has now been done. Two further

resolutions dealing with the administration of justice were discussed, but neither of them secured the approval of the House; the suggestion to extend trial by jury to all cases in which imprisonment for more than three months could be inflicted was obviously likely to be very expensive and would involve persons unfortunate enough to be entered in the jurors' lists in a large amount of work, while another resolution recommending that civil and revenue courts should be instructed to enquire from the parties, before beginning a case, whether they wished to refer the case to arbitration failed to secure any large number of supporters.

Debate on budget reduction of the High Court.

The most important debate in connection with the administration of justice occurred, however, not on a resolution, but on a motion for reduction by one thousand rupees in the budget demand for the High Court. This motion was made the occasion for a violent attack on the administrative side of the Court. Allegations were made against the ministerial officials of the court, and charges of corruption against the clerks. These statements were unsupported by evidence, and it appeared in the course of the debate that the real reason which had led to the proposal for reduction was that the appointments of Deputy Registrar and Assistant Registrar had been ordinarily filled by Bengalis. When the motion was first brought forward during the voting of budget grants, Government were taken by surprise and had not the material for a detailed refutation of the allegations. But early in the following month a supplementary demand was brought forward, when Government refuted in detail all the various charges that had been made. It was suggested to the lawyer members that if they had any grievances against the administration of the High Court the correct procedure would be to complain through their association to the Chief Justice before bringing the matter up in open discussion in the Council, and passing what in effect amounted to a vote of censure against the Court. It was pointed out that action of this nature is likely to create in the minds of the people, of the High Court, and of Government, the impression, that the Council is prepared to bring pressure to bear upon the High Court for political or personal objects, and that it will not support the principle that the judiciary should be independent of the legislature. There are three elements in the constitution, the judiciary, the legislature and the executive—and if the Council disturbs the equilibrium and adjustment of the three

it takes a serious risk. The passing of a vote of censure against the High Court must disturb that adjustment, must lower to a certain extent the position of the judiciary and, in so far as it does so, must imperil the success of the system of Government set up by the Reform Scheme. The feeling on the racial question was, however, bitter, and in spite of these arguments and considerations the supplementary demand was rejected by twenty-eight votes to twenty-one, only eight non-official members voting on the side of Government.

The Council and finance.

A large part of the first session of the year was occupied by the discussion of the budget, and there were throughout the year frequent debates on various supplementary demands. These have been discussed in detail in the last chapter, where it was shown that though there was a general outcry at the small allotments for education and medical relief, and at the increased expenditure on the police, the necessity of allotting funds for reserved subjects was realised and few motions for reduction or omission were passed. This desire for more money for education and medical relief was the main cause which led the Council to sanction increased fees for registration and to pass the Court-Fees Amendment Act. It would have been possible for Government to increase registration fees without consulting the Council, but it was thought best to discover how the proposal would be received, and whether the proposals as formulated were considered to need modification in any particulars. The chief arguments that were put forward against any increase were that Government had no right to raise money by the administration of justice or by compelling a man to register a document at a price larger than was necessary for the maintenance of the department. These arguments, however, did not find favour with any very large section; and it was recognized that the condition of the provincial finances made it necessary to raise money by taxation and that no other satisfactory means of doing so at present offered itself. The Council, however, though ready to accept the principle that an increase of taxation in this manner was necessary, was careful to protect the interests of the poorer class of litigants. The bill as approved by the Select Committee increased the stamp on complaints from eight annas to one rupee, and exempted from an increase in court-fees only suits up to the value

Increased taxation.

of Rs. 50. Various amendments were put forward both to retain the present court-fees stamp on the petition of complaint and to exempt suits up to Rs. 100, and finally it was decided to exempt suits up to Rs. 100 from any increase of fees, and to raise the stamp on complaints to twelve annas only. With the exception of these amendments the Act was passed practically in the form in which it had been approved by the Select Committee, while the proposal to raise registration fees was approved without modification by twenty-eight votes to five.

The most important part, however, of the year's work was the passing of certain legislative measures. Of the Acts passed the most interesting was the Village Administration Act. This provides for the creation of unions, consisting of a number of villages, and the constitution therein, on a wholly elective basis, of union boards, which may be given administrative functions and the duty of controlling the village police. In the administrative sphere the boards may be entrusted with sanitation, medical relief, primary education and the construction and maintenance of village roads. They will derive their income principally from grants-in-aid by the district boards to which in these matters they will be subordinate, but they have also been given powers to raise additional funds by means of taxation. In connection with the village police the chief duty of the boards will be the assessment and collection of chaukidari-tax.

Village Administration Act.

The most important part of the Act, however, is a provision for the constitution of panchayats to exercise judicial powers, both in civil and criminal cases. These panchayats will be composed of members of the union boards, and the powers given them are considerably wider than in the corresponding Acts in other provinces. In criminal cases they are empowered to impose fines amounting to Rs. 50, and in civil cases they have jurisdiction in suits for recovery of money and movable property of a value of Rs. 25 or less, though in special cases panchayats may be empowered to decide such suits up to Rs. 100 in value. In criminal cases the jurisdiction of the panchayats is concurrent with that of the criminal court, but in civil cases the jurisdiction of the ordinary civil courts is in some cases barred. The procedure laid down for the trial of cases before panchayats is simple, and no legal practitioners are allowed to appear.

Constitution of panchayats.

Several material alterations were made in this Act during its passage through the Council. Members showed themselves averse to granting large powers of taxation to the boards, and the limits of taxation were considerably reduced by the Select Committee. A motion for submitting the proposed assessment list to the electorate by means of a referendum, though finally rejected, obtained some support. The continuance of the magistrate's control over the chaukidars aroused considerable criticism, and in particular objection was taken to his power of appointment and dismissal, and of revising a sentence of fine passed by a union board on a chaukidar. Amendments seeking to reduce these powers were, however, rejected by the Council, as the majority recognized that, as long as the District Magistrate is responsible for law and order, he must retain powers of control over chaukidars. In view, however, of the generally expressed dislike of enquiry by the police into the fitness for appointment of any chaukidar, Government agreed to lay down rules as to the manner in which the magistrate was to satisfy himself that the nominee suggested by the union board for appointment as a chaukidar was suitable. The main objects of the Act are to secure an improved system of village administration and a simplified and cheaper method of deciding petty civil and criminal cases, but besides these there is another and very important object. The representative system is now being adopted as the means of governing the country, and if the system is to be successful, one of the first essentials is the education of the electorate to the realization of the value of the vote and the power which the electors have over their representatives. There can be no better means for providing this education than the system of village administration laid down by this Act; the franchise will be wide and, as the union areas are small, the electorate will have no difficulty in seeing the results of the actions of their representatives, and will be able to learn by experience those most fitted to represent them.

Alterations made in the Act in Council.

The educative value of the Act.

A further material advance in Local Self-Government was made by the Municipal Act. It had long been realized that the old Bengal Municipal Act failed to satisfy present conditions, and the present Act revises municipal law more in accordance

The Municipal Act.

with modern ideas. The principle of representation has been further recognized, and while the maximum number and the proportion of elected members has been increased, the franchise has been extended to all persons paying one rupee eight annas as taxes. The sex disqualification has to a certain extent been removed, and women, who have paid taxes to the said amount and have passed the Matriculation Examination of any University, or certain other examinations, have been given votes and made eligible for election. Official control over municipalities has been reduced to a minimum, salaried servants of Government are debarred from holding the post of chairman or vice-chairman and from voting at the election of a chairman. The proportion of nominated members has been reduced, and official control over the budget and other matters has been materially diminished. The power of Government to amplify the provisions of the Act by means of rules in cases in which uniformity is necessary has been retained, but the commissioners have been given very extensive powers to frame by-laws and thereby adapt the Act to local conditions. The responsibility for municipal administration has, therefore, been thrown almost entirely on the representatives of the rate-payers, and in order to assist them in performing their duties they have been given enhanced powers in dealing with public nuisances and for improving the general condition of the town. The Act was passed practically in the form in which it had been recommended by the Select Committee, and no very important amendments were introduced. Some interesting discussions, however, took place on amendments which were subsequently either defeated or withdrawn. An attempt was made to secure communal representation for Muhammadans, but the principle was opposed on the ground that communal representation was unnecessary in municipalities and the amendment was withdrawn. Fear of official control was the cause of a strenuous attempt to make nominated members ineligible for appointment as chairman or vice-chairman, but in the end the principle was accepted that a nominated member, being a member of the board, should be entitled to all the privileges of membership. There were again, as in the case of the Village Administration Act, those who considered the introduction of a referendum on such subjects as municipal taxation and excise policy

Increased representation.

Reduction in official control.

Discussions in the Council on the Act.

to be advisable, but as this view met with little support the amendments were withdrawn.

Another important bill to amend the Local Self-Government Act was introduced, and was referred during the year to a Select Committee, but as the final consideration of this bill was taken up in 1923 it would be premature to discuss its provisions here. Its main objects, however, are to establish a system of direct election for district boards and to increase the board's control over their own affairs. Another Act that was passed was the Civil Courts Amendment Act, which enables the local Government on the recommendation of the High Court to empower selected munsifs to try cases of the value of Rs. 4,000, the previous limit of a munsif's jurisdiction having been only Rs. 2,000.

Local Self-Government Bill.

Besides these, two other important acts dealing with irrigation were passed, the Private Irrigation Works Act and the Minor Irrigation Works Act. In some parts, especially in South Bihar, there are in existence a large number of private irrigation channels which have for the most part been constructed many years ago but have fallen into disrepair largely owing to the subdivision of estates. Irrigation works that used to belong entirely to one estate now pass through several, and the landlords of the various estates are unable to agree amongst themselves or to co-operate in repairing them. The Private Irrigation Works Act attempts to provide a remedy for these difficulties. Any co-sharer who is prepared to take up the repairs and maintenance of irrigation works, of which Government consider the repair necessary can do so, and recover the proportionate share of the expense from his co-sharers. If an irrigation channel passes through several estates, any one proprietor can effect the repairs and recover contributions from his neighbours: and, finally, if after Government has called upon the various landlords to repair their irrigation works, they still are unwilling to do so, Government may itself step in and take measures to see that the work is carried out. The Act also lays down provisions for the maintenance of small irrigation works by village agencies. The Minor Irrigation Works Act provides that Government may undertake the construction and maintenance of new irrigation works, which fall short in importance of general canals and recoup the cost from the land-owners who will be benefited by the work,

Acts relating to irrigation.

though there is an important provision that no such work shall be taken up unless the estimate is agreed to by the permanent owners of at least one-half of the area affected. During the passage of these bills through the Council the land-owners made certain objections and made strenuous attempts to postpone their consideration on the ground that they had had no time to consider the material alterations which had been made in the bills by the Select Committees. The House, however, decided to proceed with the bills, and the only important amendment that was carried reduced the power of the collector, so that he can only order repair in cases in which the estimated cost of executing the repair does not exceed two rupees per acre of the area benefited, instead of five rupees per acre as was proposed by the Select Committee.

Objections taken to the bills by land-owners.

Another most important bill, the Bihar and Orissa Tenancy Amendment Bill, was introduced and referred to a Select Committee, but its final consideration was postponed until this year. The objects of the bill are to re-adjust the relations of landlord and tenant in the light of actual experience of the working of the existing tenancy law, and to reduce as far as possible opportunities for friction and consequent litigation arising between them. The bill, therefore, deals with such disputed points as the right of tenants to plant and appropriate the wood of trees on their occupancy holdings, rights of transferability of such holdings, the commutation of produce rents, limitation of the period of recovery of such rents, the nature and extent of landlord's private land, improvements in rent suit procedure and the realization of rents by certificate. In the Select Committee, however, it appeared that the bill failed to satisfy either the tenants' or the landlords' party, and the report of the committee was signed, subject to notes of dissent by all the non-official members. The report of the Select Committee was presented to the Council before the close of the year. A very large number of motions to amend the bill were subsequently tabled, and the six days originally allotted to the bill sufficed for the discussion of but a few. As the tenor of the debates and of the many private conferences held during and after these debates, showed that there was no hope of any agreement being reached by the contending parties on the main issues involved, no further time was allotted to the bill which has been held in abeyance for the present.

Bihar and Orissa Tenancy Amendment Bill.

It was pointed out in last year's report that though there was a large majority of non-official members representing the landlords in the Council, signs were not lacking that a raiyats' party would quickly develop and that "the period of the raiyats' political infancy would be unusually brief". There are certainly signs that the raiyats' party in the Council is attempting to formulate a programme and to educate the electorate to an appreciation of it. On the other hand the interests of landlords and tenants are so indisolubly mingled that their mutual satisfaction is indispensable to the welfare and prosperity of the agricultural community. It is unfortunate, therefore, that an amicable settlement of various outstanding agrarian differences still remains to be found.

The raiyats' party.

CHAPTER IV.

Government and economic problems.

Bihar and Orissa, inclusive of the Feudatory States, has an area of over a hundred and eleven thousand square miles, and a population of just under thirty-eight millions. Exclusive of the Feudatory States, it has an area of eighty-three thousand square miles, and a population of thirty-four millions. Figures by themselves are not very illuminating, and a few comparative facts may be interesting. The province supports a population slightly larger than the population of England and Wales, on an area nearly twice as large, and a population nearly as large as that of France on rather more than half the area of that country. The Orissa division, which is the least populous of the administrative divisions of the province, contains a population almost as large as that of Australia, while the Tirhut division, which is the most populous, contains a population larger than that of the whole of Canada and twice as large as that of Australia.

Population and area of Bihar and Orissa.

The population is predominantly agricultural—out of every thousand persons 963 live in villages, 814 are directly dependent on agriculture for their livelihood, and 652 are ordinary cultivators. It follows that the number of people living on each square mile in agricultural districts must be unusually high. The average density per square mile throughout the province is 340—in the Tirhut division, however, the density rises to 790 per square mile, and in Muzaffarpur, which has the highest density of any district in the province, is actually over 900 per square mile. In the whole of north Bihar the mean density is 642, and in south Bihar 502. This shows that the pressure of population on the soil is such that there is little scope for any further increase, except in districts in which industrial development provides the necessary resources.

The population predominantly agricultural.

The dependence on agriculture of so large a proportion of the population of the province emphasises the importance of sufficient rainfall. During the year under report climatic conditions were on the whole favourable to agriculture. At the end of 1921 conditions had been suitable for the cultivation of *rabi*, which had been planted on a normal area, and the rain which fell in January was of such benefit to these crops that the estimated yield was in the case of oil-seeds five per cent., and in the case of wheat and other *rabi* crops ten per cent., above normal. From January to June little rain fell throughout the province. In Bihar, however, during the first five days of June, the monsoon broke giving unusually heavy rain, and, as this was fortunately followed by a weeks' break, cultivators were able to sow their paddy in favourable conditions. Meanwhile in Chota Nagpur and Orissa the showers which had occurred at the beginning of June had resulted in the sowing of the large area of paddy that is usually broad-casted before the monsoon. Rain fell throughout the province from the middle of June to the end of August, and was so heavy and continuous that it was difficult to get an opportunity of sowing *bhadai* crops. Consequently a large area that is usually sown with *bhadai* was left uncultivated; such crops as were sown, particularly maize, were considerably damaged by the heavy rain, and the outturn of *bhadai* was estimated at only eighty per cent. of the normal. Floods occurred in north Bihar and damaged a certain amount of paddy and *bhadai*, but they were localised and in no case affected any very large area. Generally, however, the conditions were very favourable to paddy, and as the rain continued up to the end of September, and in October showers occurred in Bihar and heavy rain in Chota Nagpur and Orissa, a bumper paddy crop was harvested, estimated at twenty per cent. above the normal on an area of 11,382,900 acres. It is in fact many years since the province has secured so good a paddy crop.

Climatic conditions in 1922.

Rice.

Other crops were, however, not so successful. The distribution of rainfall was not suitable to sugar-cane which is becoming so important a crop in Bihar. The conditions were generally favourable for planting, but the crop suffered from want of early rain, especially in north Bihar, and later the continuous monsoon rain

Sugar-cane.

caused difficulties with weeding, while in some places growth was checked by early water-logging; in Shahabad and Saran the crop was also damaged by excessive rain. Generally the outturn was estimated at about eighty-six per cent. of the normal on an area of 325,200 acres. The excessive rainfall was also detrimental to cotton, which was grown on 78,300 acres in the year with an estimated outturn of 14,054 bales. The outturn of indigo was disappointing as the crop was a good deal damaged by rainfall and floods. As was the case last year also, conditions at the end of the year were favourable for *rabi*, and the prospects of the crop were promising.

Cotton and Indigo.

The good harvests that occurred throughout 1921 and 1922 had considerable effects on the price of food-stuffs. At the beginning of the year the average price of common rice was 7·53 seers to the rupee. As the stocks of the previous year were depleted the price rose to a maximum of 6·60 seers to the rupee in August. The price, however, began to fall again as soon as the early rice was harvested and by December had gone down to 8·89 seers to the rupee. This is the lowest average price at which rice has been sold since the failure of the 1918 crop caused prices to rise in the latter part of that year. The price of maize showed similar but smaller variations. Starting at 10·33 seers to the rupee at the beginning of the year, the price rose to 10·00 seers to the rupee in July, and again declined at the end of the year to 11·20 seers to the rupee in December.

Effect on prices.

Except in the industrial part of Chota Nagpur, the proportion of agriculturists to the rest of the population varies little from district to district. There is, however, a wide divergency of soil and general agricultural conditions between one part of the province and another, and the cultivators' problems vary correspondingly from district to district. The development on right lines of the agricultural department is, therefore, a matter of the very greatest importance to the country; and following a resolution of the Council a committee was appointed by Government at the end of 1921 to consider questions of policy and organization. This committee came to the conclusion that though the agricultural department had not at present succeeded to any great extent in bringing about general improvements in agriculture, it

Report of the Agricultural Committee.

would be possible with proper organization to improve appreciably the present agricultural conditions of the province. The committee accordingly made a number of suggestions for the reorganization of the department which have been mostly accepted by Government.

Its recommendations regarding the Sabour College.

The question of the future of the Sabour agricultural college was one of the matters referred to the committee, and they recommended unanimously that the classes should be closed, and the specialist sections in entomology and mycology abolished. A majority also considered that there was not sufficient prospect of advantage to the province to justify the expenditure required for maintaining the chemical and botanical sections. A minority, however, of the committee recommended the maintenance of these sections. The minority report points out the great advantage that is likely to accrue from retaining the services of experts in these two sections, the necessity of having a survey from a chemical point of view of the soils of the province, and the immense profits that can be secured by the work of a botanist on problems such as those of seed selection and cross-breeding. Government accepted all the recommendations of the committee with regard to the Sabour college, with the exception of the recommendation to abolish the chemical and botanical sections, which they have decided to retain for the present, though pending their final decision on the question they have determined not to fill the post of economic botanist, which is at present vacant.

Closing of Sabour College.

As a result of these recommendations the educational classes will be closed from the end of March 1923. The college has never had a great measure of success as an educational institution; the only students that it attracted were those who sought employment in the department, and under the new organization these can obtain training on the farms, where instruction in practical farming on modern lines will be given.

The number of Deputy Directors.

The majority of the committee also recommended that the number of deputy directors charges should be reduced from seven to five. This entailed the abandonment of the farm in the Santal Parganas, which had already received the administrative

approval of Government, and the delegation of the work in the eastern parts of north and south Bihar to assistant directors working under the deputy director in the west. The minority, however, regarded this as impracticable. The abandonment of cattle-breeding at Sepaya as hitherto conducted was agreed upon.

The committee's recommendations regarding farms.

On the other hand the committee recommended a great extension of small farms and that the subdivision instead of the district should be taken as the unit in this respect. After considering the degree of diversity of the soil and climatic conditions of the province, the rate at which the staff required for subdivisional farms could be trained on the larger farms, and the limits imposed by financial considerations, the committee considered that the absolute minimum organisation was four large farms, one in Chota Nagpur, one in south Bihar, one in north Bihar and one in Orissa, and that in addition to these at least one subdivisional farm should be established without delay in each range. They put forward a programme for the establishment, ultimately, of one subdivisional farm in each subdivision within a period of ten years. Government accepted this recommendation, subject to financial considerations, and a sum of Rs. 75,000 was placed in the budget of 1922-23 to enable a start to be made in developing the policy. The committee also recommended that arrangements should be made with cultivators to obtain small areas which would be cultivated by the owner under the supervision of the department for the demonstration of improvements of all kinds, and this recommendation was also accepted by Government.

The present policy.

The agricultural policy, therefore, which it has now been decided to follow, can be defined as a policy of experiment and demonstration. When the policy is fully developed each villager will be able to see in his own subdivision a farm managed by the agricultural department, and will be able to estimate for himself, by watching experiments carried on under conditions similar to his own, the value of improved varieties of seeds and manures and of better methods of cultivation; while the officers in charge of each farm will be able to adapt to local conditions the results of experience gained by more comprehensive experiment on the central farms.

Fair progress was made this year in the development of the scheme. Four large and seven subdivisional farms were already in existence. Land is being acquired for the establishment of five new subdivisional farms in Gaya, Shahabad, Bhagalpur, Palamau and Purnea, and sites have also been selected for farms in the districts of Cuttack and Puri, though it will not be possible to acquire these in the financial year 1922-23. The Purnea farm will be financed by the trustees of the Purnea Tournament Fund. This is a welcome sign that influential men are realising the improvement that the establishment of these farms is likely to make in agricultural conditions, and is an example that might well be followed by leading zamindars in the province.

Progress during 1922.

There is, however, one difficulty in giving full effect to the scheme, and that is the training of the large number of overseers that are necessary for the subdivisional farms. This training can only be satisfactorily given on the central farms, where conditions exist somewhat similar to those that will be found on the subdivisional farms, and it is unfortunate that the insufficiency of central farms consequent on the reduction of the 1920 programme makes it difficult at present to arrange for the satisfactory training of these overseers.

Training of overseers.

Meanwhile the results of previous experimental work are being seen. Rice is the most important crop of the province, and the agricultural department has devoted much attention to attempts to improve the varieties of seed. Plants of the most promising types have been selected on the various farms in the province, and after the multiplication of seeds from these plants under careful observation the yield per acre of the most promising, as compared with similar local varieties, is tested with mathematical accuracy by routine methods on each farm. The *dahia* paddy which was selected at Sabour, and which is remarkable for its earliness and power of resistance to short periods of drought, is one of the most successful discoveries. This paddy was first discovered in 1919, and was introduced in small quantities into south Bhagalpur in 1920 and 1921. It has proved, its worth so well that it has now spread over five thousand

Improved type of seed introduced by the department.

Dahia paddy.

acres, and as it commands a substantial premium over other varieties for seed purposes, its growth is assured over largely increasing areas as seed becomes available. Other promising new varieties of rice have been selected and tested on the farms in Chota Nagpur and Orissa. Improved types of sugar-cane obtained by cross-breeding at Coimbatore and tested at Sepaya and Pusa are being introduced in north Bihar; while experiments are being carried on in the selection of ground-nuts, soy beans and cotton, of coconuts suitable for Orissa, and potatoes for Neterhat.

Experiments have also been carried on in problems of manuring and a system of green-manuring broadcast paddy with *dhaincha* was introduced into Orissa some four years ago. This has proved so successful that it has now extended almost spontaneously over the Orissa delta to a distance of twenty miles from the Cuttack farm, and is still spreading rapidly. On suitable land it implies an increased profit of at least rupees five per acre at no cost except that of the *dhaincha* seed, which is collected from plants growing on the "ails" between the paddy fields and is sown with the paddy. The woody stems of the *dhaincha* are also prized as fuel. A different system of green manuring transplanted paddy with the help of a maund or so of phosphate of lime has been introduced with success in south Bhagalpur. But these improvements cannot be carried out as easily as the introduction of new seed. The cultivation, manuring and ploughing in of *dhaincha* as a green manure for transplanted paddy are operations in which the cultivator has to be instructed on the spot, and it is for work of this nature that a trained staff is essentially necessary.

System of manuring by dhaincha.

The economic importance of cattle, both to the cultivator and to the province generally, needs no emphasis. Cheap and good plough-cattle are essential to the cultivator; the bullock-cart is and will remain one of the chief means of transport, while the provision of an adequate and pure milk supply is a problem of the utmost importance to public health. The resolution passed in Council recommending the appointment by the Government of India of a committee to consider the whole question of cattle protection in India has already been mentioned. Speakers on this resolution criticized the export of cattle and the poor yield of the present milch cow. Government

The economic importance of cattle to the province.

in their reply accepted the resolution but called attention to one or two facts. It was shown that the number of cattle in India is actually increasing proportionately to the population, and that the real problems that have to be solved are the provision of adequate grazing and food for the cattle, the improvement of stock by selective breeding of the healthiest and most useful types, both for draught and milking purposes, and the prevention of disease.

Cattle-breeding.

The problem of improving the breed of cattle in the province has not yet received the attention which it deserves, and the adoption of a settled policy has been seriously impeded owing to lack of funds. During the year, owing to financial considerations, it has been decided to close down the Government cattle farm at Sepaya, which had during the last few years produced some very fine bulls for breeding purposes, and the herd is now being disbanded. The cattle farm at Bettiah is still, however, being carried on, and the herd consisted at the end of the year 1921-22 of two stud bulls, forty cows, fifty bull calves, forty-four heifer calves and eleven buffalo bulls, while it is intended to purchase twelve young buffalo bulls from the Punjab during the present year. The present yield of the ordinary milch cow in India is considerably lower than in other countries, and it has now been decided to make milk production the primary object of cattle-breeding in the province. Particular interest, therefore, attaches to the herd at Kanke. This herd was started with the intention of supplying milk to the neighbouring mental hospital and has been successful in producing bulls of a good milking strain, which it is hoped will soon be available for distribution to local bodies and private individuals. The improvement of stock can also be effectively carried out by local bodies, but at present very little progress is being made in this direction. The number of bulls maintained by local bodies fell during the year 1921-22 from forty-seven to forty-one. Of these twenty are kept by the district board of Shahabad, but the board is hampered by lack of funds and has been compelled to abandon the cattle show which was held at Niazipur and which was intended to form a nucleus for cattle-breeding in the district, so that the positive results of their cattle-breeding have been up to the present comparatively small, although there has been a great demand for the bulls.

The Kanke dairy herd.

District boards and breeding.

Cattle disease.

The preservation of cattle from contagious disease in India presents certain difficulties peculiar to the country. The average cultivator is ignorant and full of prejudices. It is difficult to make him realise the advantages of preventive inoculation, and his usual means of combating disease is to move his cattle from a village, in which disease is prevalent, to some other village, thereby carrying infection there also. The mortality from cattle epidemics of which the chief are rinderpest, hæmorrhagic septicæmia, anthrax, black quarter, and foot and mouth disease is, therefore, much higher than it need be. The last cattle census in this province showed a total cattle population of twenty-four million. From the 1st April 1921 to the 31st March 1922, over twenty-eight thousand cattle died in the province from various contagious diseases, and of these nearly twenty-three thousand died from rinderpest. During the last nine months of the year eighty-five thousand animals are known to have been attacked by various diseases—and of these over twenty-one thousand died. Foot and mouth disease, of which over fifty thousand attacks were reported, occurred in all parts of the province, while rinderpest and hæmorrhagic septicæmia caused mortality in twenty districts. The work of the veterinary department in the prevention and cure of epidemic diseases is, therefore, of very great importance. The advantages of inoculation appear to be gradually being recognised by all classes and, in spite of difficulties caused by non-co-operation, the total number of inoculations of cattle made in 1921-22 was over one hundred and twenty-three thousand, as against ninety-two thousand in 1920-21 and fifty-five thousand in 1919-20. Of those inoculated only five hundred and sixty-seven, or one in every two hundred and fifty, subsequently died. Of cattle that are unprotected by inoculation about three in every ten attacked die, and as it may be taken as certain that practically all the animals inoculated were exposed to infection, since, otherwise, their owners would not have sought inoculation, the number of cattle directly saved by inoculation, during the year may be estimated at thirty-six thousand. Taking the average price of cattle at all ages as forty rupees, the estimated direct saving in one year to the cultivators from inoculation would, therefore, amount to the large sum of fourteen and a half lakhs. Besides this there is probably an even larger indirect saving, as but for the work of inoculation, epidemics would have spread to a far wider area and many more cattle would have been exposed to infection.

The value of inoculation.

The activities of the department are, however, still seriously curtailed by lack of staff. In 1921-22 there were 4,876 outbreaks of different diseases reported, but the veterinary assistant surgeons were only able to attend 3,380, and only performed inoculations in just under 1,000 outbreaks. During the year one post of inspector and six posts of assistant surgeons have been sanctioned, and the staff now consists of eleven inspectors, twenty-three hospital, and ninety-four touring, and eighteen staff and reserve veterinary assistant surgeons. This staff is even now by no means sufficient, and in some cases the charge of an assistant surgeon extends to as much as one to two thousand square miles. The expansion of the veterinary service is a matter which must rest largely with local bodies, but the very valuable work done by the veterinary department shows that the expansion of veterinary relief is a very potent means by which district boards can improve the economic condition of the cultivator.

The veterinary department's lack of staff.

During the year some progress has been made in providing for the treatment of general diseases and injuries of animals. On the 1st of April, 1922, there were twenty-four veterinary hospitals in districts with accommodation for in-door and out-door patients, and sixty-four dispensaries in charge of touring veterinary assistant surgeons for the treatment of outdoor patients, while during the last nine months two more hospitals at Dhanbad and Bargarh and five additional dispensaries were opened. The value of treatment in these dispensaries is being increasingly recognised, and during the last nine months of the year twenty-two thousand animals were treated at hospitals, and sixty-one thousand by touring officers compared with sixteen thousand five hundred and twenty-two thousand three hundred which were the figures for the corresponding period of last year. This increase may, however, partly be attributable to the outbreak of "foot and mouth" disease, which was prevalent in most districts in a more or less mild form.

Veterinary hospitals and dispensaries.

One of the difficulties with which the department is faced is that of recruiting a satisfactory class of assistant surgeon. This is partly due to the small pay of the department, which however has recently been raised, and partly to the lack of training facilities in the province. Students from this province have to go to Calcutta for training at

The proposal for a Veterinary College.

the Bengal Veterinary College at Belgachia. To meet this difficulty a proposal has been made to establish a veterinary college at Patna. A scheme was prepared for taking over the site and buildings of the Bankipore lunatic asylum, re-constructing them where necessary, and establishing a college there. This scheme, however, was not accepted by the agricultural and veterinary advisory board, and a suitable site has yet to be found. One of the chief difficulties in starting a college for Bihar and Orissa only is that the number of graduates who could be absorbed in the service of this province is so small that the cost of maintaining a college will be very heavy, unless candidates can be attracted from outside.

Canal systems of the province.

Irrigation and drainage are closely connected with other problems of the land and are of very great importance to the agricultural population of the province. There are four major canal systems in the province, the Orissa and Son canals, and the Tribeni and Dhaka canals. Of these the first two used to be classed as productive, and the latter two as protective; but under the recently issued orders of the Government of India all four have now to be classed as unproductive, as at present none of them produce a net revenue sufficient to pay four per cent. interest annually on the capital outlay. The cost of the original construction of these four works was met by the Imperial Government, who have also given financial assistance in meeting subsequent expense on capital works. Formerly the working expenses as well as the revenue derived from these canal systems were shared by the Imperial and Provincial Governments, but from 1921-22, in accordance with the new financial system introduced by the Reform Scheme, all further expenditure on these canals is met by the province, and the entire revenue derived from them is credited to provincial accounts, though the local Government have to pay to the Central Government annual interest on their share of the capital outlay.

Orissa Coast Canal.

The decline in navigation on the various canal systems was noticed last year. The question of the maintenance of the Orissa coast canal, which is solely a navigation canal, was considered by the Council in 1921, and a budget motion for the total omission of the demand for this canal was also put forward in 1922. It was, however, pointed out in this debate that Government had held an enquiry into the

value of the retention of the canal and had found that it served several useful purposes. It provides inland water communication between Orissa and Calcutta, and a valuable means of local communication in a part of a district otherwise badly served, and also acts as a very useful drainage channel. The canal is only working at a small loss, and it was decided to continue maintaining it until the survey of the coast districts in Orissa has been completed. Later in the year, however, it was discovered that if one portion of the canal is to be kept open, a large sum will have to be spent on silt clearance, and the question of closing this portion has again been raised and is still under consideration. The receipts from navigation on the Orissa and Son canals were about ninety thousand rupees, or six thousand rupees less than the average of the three preceding years. The rates charged for navigation were very low, and it has now been decided to raise those on the Son canals by fifty per cent., while a proposal for a similar rise on the Orissa canals is under consideration.

Navigation receipts.

But the most important functions of all the four canal systems are those connected with irrigation. During 1921-22 the Son canals irrigated 611,083 acres, which is a slight decrease from the previous year. This decrease was due to the favourable rainfall at the end of the *hathia* which caused a decrease in *rabi* irrigation. The area irrigated by the Orissa canals—291,544 acres—was also slightly smaller than last year, and the areas irrigated by the Dhaka and Tribeni systems—98,000 acres—were much the same as usual. The Son canals brought in a net revenue of seven and a half lakhs which is very nearly three per cent. on the capital outlay, but the Orissa canals were worked at a loss of nine and a half lakhs after deduction of interest, and though the Dhaka and Tribeni canals showed a slight profit it was not sufficient to pay the interest charges on the capital outlay.

The main irrigation canals.

The most important decision arrived at in the present year regarding these canals was to raise the rates charged for water. There can be no doubt that, considering the great increase in the value of all produce during recent years on the one side, and in the prices of materials and labour on the other, the rates charged for water were very low. The new rates came

Increase in rates for water.

into force from the beginning of the year 1923, and a table showing the percentages of increase is given below :—

—	Orissa.	Son.	Tribeni.	Dhaka.
Long term leases	40%	28%	50%	50%
Kharif season leases... ...	28%	11%	33%	33%
Rabi season leases	66%	40%	...	60%
Hot weather leases	50%	50%	...	150%

This increase still keeps the incidence of the water-rate much lower than it is elsewhere. In India the average incidence is ten per cent., in Egypt twelve and a half per cent. and in America sixteen per cent. of the value of the crop, while the new rates in Orissa give only an average rate of five per cent. on the value of the crop, those charged on the Son canals an average rate of just over four per cent. of the value of the crop, and those on the Tribeni and Dhaka systems of three and three-fourths per cent. It cannot, therefore, be said that the increase is unjustified or excessive, and it may be safely assumed that even after the increase the rates charged are considerably lower than the economic value of the water. The whole area under irrigation will not come under the revised rates at once as leases will be renewed on the new rates as they fall due—but it is expected that the increase in rates will result in a steady increase of revenue during the next ten years culminating in a total increase of over ten lakhs of rupees.

Method of collecting rents for water.

A resolution was moved in the Council recommending that the assessment and collection of water-rates on the Son canal should be under the control of the same agency, and the matter is under consideration. In the course of the debate mention was made of the new system of rent collection which has been introduced on the Son canals. The deputy collector in charge of collection goes on tour to various centres and remains there four or five days, so that lessees only have to come in some two or three miles to see him and pay their rent to him personally. The system is working satisfactorily and is being extended; it is convenient for those who have to pay rent and results in good collections. This is shown by the collection figures for the year 1921-22, when out of a total demand

of over twenty-two lakhs only nine thousand rupees were left outstanding at the end of the year.

Canal service roads.

It will be remembered that last year the Council made certain recommendations regarding the opening of canal service roads to the public. As a result of this resolution the canal service roads in Shahabad, Patna, and Gaya have been opened to light traffic. The question of opening them to heavy cart traffic was also considered, but the district boards were unwilling to undertake the responsibility of the upkeep of the roads, the provision of crossing places and, in some places, the metalling which would have been necessary if the roads were to be opened to bullock carts without damage to the canals. It was impossible for Government to meet the cost in this matter, and so, though the roads have been opened to light traffic, the suggestion of opening them to bullock carts has been found impracticable.

Private irrigation channels.

Besides the Government canal systems a very important means of irrigation in the province, especially in south Bihar, are private irrigation channels. These have, however, lately fallen into disrepair, and become in many cases practically useless because it was impossible to get the various landlords to agree as to the necessity and manner of repairing them. The two new Irrigation Acts, of which mention has been made in chapter III, should have a great effect in restoring these irrigation channels to their former value, and should result in a large increase in the areas irrigated with corresponding benefit to the output of the crops. The Acts are, however, admittedly somewhat experimental, and actual experience will possibly show some respects in which the machinery provided is unsuitable and requires further adjustment.

Different classes of embankments.

The various problems connected with embankments are closely related to those of irrigation, but their solution is even more difficult. Embankments may be divided into two classes, those which attempt to train and keep rivers within their courses, and those which attempt to protect a certain area of land. The difficulties relating to the first class are well illustrated in north Bihar. In some rivers, such as the Gandak, the problem is

moderately easy—the river flows in a channel from three to four miles broad, and only moves about in that area, and can be controlled by embankments, so long as they are kept in repair. But the other rivers of north Bihar present greater complications. They carry a large amount of silt, and are continually raising their beds and consequently changing their courses. For instance, during 1922 the Kosi caused serious inundation in north Bhagalpur and Monghyr by a sudden and unexpected change of course. It is, however, impossible to confine such rivers by embankments, and if the attempt was made the only result would be that the river would be compelled to deposit its silt within the area enclosed between embankments, and would in the course of a few years raise its bed some ten or fifteen feet above the level of the adjacent country so that a most disastrous flood would be bound to occur. The second class of embankments also presents its own difficulties—for instance an embankment which protects one area may by causing deposits of silt alter the course of a river, or do infinite harm to other areas, and examples of this are common in north Bihar; while secondly, the construction of the embankment may give immunity to a certain area for a time only to result in involving the same area in worse floods than ever after an interval of some years. This can be seen in Orissa, where there are a large number of agricultural embankments which have been taken over by Government. These embankments are strong enough to keep out low floods, which are capable of doing a lot of good to the land by depositing silt, but a high flood, as in 1920, almost invariably breaches them and rushes through with great velocity carrying large quantities of sand and doing an immense amount of damage.

Orissa embankments.

The solution, therefore, of drainage problems and the best means by which floods can be prevented is not merely a question of building embankments, but must be based on a scientific survey of the drainage and embankment facilities of the area to be protected. Such a survey has recently been concluded in north Bihar, and the results are now under the consideration of Government, while the effects of the various embankments in the coastal districts of Orissa have also formed the subject of an embankment and drainage survey, and will be thoroughly considered with relation to the settlement operations now in progress. In both these areas the construction

Drainage surveys.

of new embankments is at present prohibited under the Embankment Act unless the previous sanction of Government is obtained.

Government embankments.

There are, however, certain embankments, the utility of which has been proved, which are maintained by Government. The most important of these are embankments in Orissa, the Bajitpur embankment on the Ganges in Tirhut, and embankments on the Gandak in Champaran. The total length of the embankments last year was eight hundred and twenty-three miles, and the area protected seven thousand six hundred and forty-one square miles, while the maintenance cost amounted to two and a half lakhs. No floods of any great importance occurred during the year, but the change of course of the Kosi seriously threatened Madhipura, which is the headquarters of a subdivision in Bhagalpur. In order to protect this town a new protective embankment scheme has been sanctioned by Government, and is now well in hand. Attacks are continually being made against the railway companies—more particularly the Bengal North-Western railway—for maintaining insufficient water-way on their railways and there can be little doubt that the disastrous Chapra flood of 1921 was partly aggravated by the blocking of drainage caused by the Mashrak line. This matter has now been carefully investigated, both by the railway company and Government, and the company have taken steps to provide the extra water-ways which were considered necessary and have drawn up a general programme which has been accepted by Government for minimising the obstruction to the free flow of water which is caused by their line. Subsequently one or two other instances have been discovered in which insufficient water-way appears to have been provided, and Government have reported the details of each case to the Railway Board.

Railway embankments.

Though Bihar and Orissa, as has been shown above, is primarily an agricultural province, it happens that it contains in Chota Nagpur one of the most important industrial areas in India, and the problems to be faced by the newly created department of industries are some of the most interesting and important at present existing in the province. They may be conveniently divided under two main heads—technical and industrial education and the development of industries.

The development of industries.

There is at present a great demand for education to fit young men and boys for industrial and commercial careers, and the provision of such education is both a political and economic necessity. Openings are numerous, but at present largely owing to the lack of educational facilities few are fitted to fill them. The province, however, is somewhat handicapped in facilities for industrial education by the absence of industries in its chief centres, as industrial instruction can usually only be effectively given in those places where industries already exist. But progress is gradually being made, and the fact that out of a total allotment of five lakhs which was made in the budget of 1922-23 for the department of industries approximately four lakhs is being devoted to industrial education, clearly indicates how important the department regards this side of its duties.

The importances of industrial education.

The Director of Industries took charge of instruction in civil engineering in September 1921. At present the only Government school open is the Bihar School of Engineering at Patna, though funds are being provided during this year to open the Orissa School of Engineering for the training of sub-overseers at Cuttack. A new governing body has been appointed to control the Bihar School. This body which consists of officials, local Indian gentlemen and representatives of the leading engineering and metallurgical firms interested in the province has been given real powers of control, and as a result is taking interest in the school. One of the first acts of this body was to submit a scheme for raising the status of the school to that of a college. This has been accepted by Government and provision for the change is being made in next year's budget. The school continues to maintain its efficiency, and during 1921-22 all the students who sat for the overseer's examination were successful in passing, and one student qualified for a sub-engineer's certificate.

Schools of engineering.

At present no Government technical institute has been opened, though the scheme for the establishment of a Tirhut technical institute is well advanced. There are, however, two important aided institutions. The Jamshedpur Technical school was opened in September 1921, and aims primarily at training young men for positions of foreman and the like in departments which actually produce pig

Technical Institutes.

Iron and steel, and which have up till now been entirely dependent on imported skilled labour and supervision. It is hoped that some of these youths will eventually rise to positions of trust. The institute is an aided school mainly financed by the Tata Iron and Steel Company, and Government, who contributed to the initial cost, make an annual grant of Rs. 25,000 on condition that one-third of the places shall be reserved for youths belonging to this province. Hundreds of applications were received for admission from all parts of the country, and the school opened with twenty-four pupils, of whom eight belong to this province. The terms offered to students are liberal and the openings attractive. The work, however, makes great demands on the physical energy of students under conditions which are often the reverse of pleasant, and only those, who are both strong and prepared to work hard, will be able to take advantage of the opportunities offered. The Jamalpur technical institute for instruction in mechanical and electrical engineering has finally been sanctioned, and construction work has already begun. The local Government are contributing Rs. 42,000 yearly to this institute on condition that two-fifths of the places for Indians are reserved for youths domiciled in Bihar and Orissa.

Mining education.

As there is a shortage of colliery managers, and exceptional opportunities of securing well-paid posts in the mines, it is most unfortunate that the scheme of the Central Government for opening a school of Mines and Geology at Dhanbad has had to be postponed for financial reasons. Meanwhile, however, the local Government have reorganized the evening mining classes. These classes are in no way a substitute for the fuller training to be given in the school of mines, but are designed to help young men already working in the collieries to acquire sufficient theoretical knowledge to obtain a second class manager's certificate. There are two lecture centres in the province and two lecturers have been appointed for each centre; the course is a three years' one and the lectures already held have been well attended. It is hoped that in the near future they will be still further improved and extended to other centres.

There are two Government industrial schools. The Ranchi industrial school has now one hundred and seven boys on its rolls, and instruction is given in blacksmithy, carpentry, bootmaking, fitting and turning and motor mechanics chiefly to Christian aboriginals. One of the difficulties with which this school has to

contend is the failure of a number of boys to complete the full course of instruction owing to the temptation to take up employment on low wages when partially trained. It naturally followed that such boys are never properly trained nor capable of commanding a decent wage. Steps are being taken to counteract this tendency, and a system of deferred workshop earnings, which are banked and only paid to students on completion of the full course, has been introduced with satisfactory results. In Angul the Phulbani industrial school continues to do excellent work; all its classes are full and the weaving and carpentry sections are being particularly successful. There are also a number of useful aided industrial schools. Among these the most important are those at Balasore and Beniadih, the former giving instruction in carpentry, cabinet work, fitting and turning, and the latter providing theoretical instruction to the sons of artizans to fit them for work in the railway coal-mines and workshops.

Industrial schools.

During the year a committee considered whether arrangements were possible for encouraging the training of industrial chemists, and as a result of their report Government has now decided to adopt a scheme combining industrial research with the training of a few students for those industries which exist in the province, and in which there are openings for industrial chemists. Another scheme which was sanctioned provides for training a few apprentices at the canal workshops at Dehri-on-Son. This scheme is intended not only to train the sons of local mistries, but also to attract a few boys who have left school at about the middle English stage. The boys will work in the shops, and attend classes in drawing, mathematics and mechanics. Boys of about the same standard were also provided for in the compositors' classes at the Gulzarbagh press, where a two years' course has been started, during the latter half of which the students work for a time in the press and earn wages.

Industrial chemists.

Apprentices in Government institutions.

The other side of the work of the department, industrial development, has not been neglected, and in particular the introduction of the flyshuttle sley has met with most encouraging success. This flyshuttle sley is a most important mechanical improvement in handweaving and means a potential doubling of output to the weaver

Handloom weaving.

who uses it. During the year 1921-22 demonstration parties in Darbhanga, Cuttack, Sambalpur, Ranchi and Bihar Sharif succeeded in introducing as many as 1,650 new looms, and it is estimated that by this introduction the value of the output of hand-made goods has increased by about seven lakhs of rupees a year. One of the difficulties in introducing the fly-shuttle sley has always been the initial cost, but as a result of experiments made at the Balasore carpentry school it has been found possible to reduce the cost of the sley and shuttle from fourteen or sixteen rupees, which was the previous price, to eight rupees. In Madhubani also carpenters have been trained by the demonstration parties to manufacture looms, and this should help to make the use of the fly-shuttle loom in that area independent of the presence of demonstration parties. The successful progress in introducing this loom and the undoubted financial benefits which result from its introduction point to the necessity of appointing demonstration parties to introduce it into other districts where the census has shown that large numbers of weavers exist. Unfortunately last year money for expansion was not available, and the scheme for establishing four new parties in Gaya, the Santal Parganas, Balasore and Manbhum had to be dropped.

Silk industry in Bhagalpur.

An interesting example of the work done by Government to encourage local industries is found at Bhagalpur. There are near the town nearly two thousand families engaged in weaving *tasar* silk and *bafta*, which is a mixture of cotton and *tasar* cloth, but the development of the industry is impeded by certain difficulties. Raw material is scarce, the method of reeling and spinning is inefficient, designs and frequently the weaving itself are bad, and there is serious competition from cheap Chinese *tasar*. A silk institute has accordingly been sanctioned in order to develop the industry; it will be run on *quasi*-commercial lines, and will pay particular attention to remedying the defects that at present hamper the industry. Its establishment should resuscitate what had become a declining industry and establish it again on a firm basis.

Proposal for sugar factory in South Bihar.

Early in the year the Council passed a resolution voting four lakhs for the establishment of a pioneer sugar factory in south Bihar. It was expected that the raiyat would secure a larger profit by selling cane to the factory instead of turning it into *gur* himself, but as there was some doubt whether the raiyat in south

Bihar would be prepared to sell his cane to the factory no commercial firm was prepared to undertake the risk of establishing a factory there. Government therefore decided, in the interests of the raiyat and for the sake of developing cane cultivation, to open a factory there, though they also expected that it would pay a reasonable dividend on the capital expended. The Council agreed to the expenditure, but it was unfortunately found that there had been a miscalculation in the cost of machinery. Consequently the scheme has had to be reconsidered, and the matter was still pending at the end of the year.

Sodium sulphate.

The department has also carried on investigations during the year into the possibility of establishing a chemical industry for the production of sodium sulphate from the deposits of *khari*—which is an efflorescence on the soil similar to *sajji matti* and is produced in large quantities by the Nunias of the Muzaffarpur district. The results of these investigations have been so far satisfactory and appear to indicate that a paying chemical industry ought to be established.

Salt.

The project for making salt in Balasore is still under consideration, but its prospects hardly seem to justify the trouble and expense which will be incurred in the excise department.

Industrial development outside the department.

The duties of Government with regard to the development of industries are chiefly to assist those industries which Government consider to be necessary or which are handicapped by some difficulties which Government are able to remove. Other industries are generally strong enough to look after their own interest, and during the year 1921-22 considerable industrial development took place in the province. At Jamshedpur the Tata Iron and Steel Company made large extensions. The steel plate mill was completed, but was not brought into operation until the new blast furnaces and duplex steel planes were ready. The Calcutta Monifieth Company's shops for the manufacture of jute machinery began work, and considerable progress was made with the works of the Tinplate Company, Indian Steel-wire Products, Ltd., and other smaller companies. The development was however not confined solely to mineral concerns, and among other important concerns which were completed may

be mentioned the Japla Portland cement works, the Samastipur sugar mills, the Bihar tannery and the Purnea rice mills. Generally the year was favourable to large industries, but smaller ones suffered considerably from difficulties in respect of coal and finance, while the strikes on the East Indian Railway and at Jamshedpur, which have already been referred to in chapter I, also had disturbing effects.

Financial assistance to industries.

One of the main difficulties which confront owners of small factories is the difficulty of obtaining capital. There are not many banks in the province, and such banks as there are are not very willing to advance money to small enterprises which have no capital. The director of industries has suggested the introduction of an Industrialist Loans Act, which will assist such concerns to buy machinery on a system similar to the hire-purchase system, and will also provide capital for recurring expenditure secured against the value of these concerns. A bill on these lines is being drafted, and it is hoped that it will be introduced into Council during the year.

Increase in number of factories.

The broadening of the basis of registration, which has been introduced as a result of the Indian Factories Amendment Act of 1922, has increased the number of registered factories in the province from eighty-five to two hundred and twenty, but though a small portion of this increase is due to a normal addition of newly established factories, the greater part has resulted from the amended definition of "factory" in the Act of 1922. Whereas formerly at least fifty employés were required to constitute a registerable factory, twenty is now the qualifying number. Further indigo and tea factories and electrical generating stations, formerly not registerable, are now brought under the Act.

High percentage of factory accidents in the province.

The most unsatisfactory feature in the working of the Factories Act is the very high proportion of accidents occurring in this province. In 1920 the accident rate for the whole of India and Burma was 0·465 per 100 persons employed, while in this province in 1921 the rate was 2·51 and in 1922 2·35 per 100 persons employed. The principal causes of the high accident rate in Bihar and Orissa appear to be, first, that a very

high proportion of the factory workers in the province are employed in exceptionally large factories, where the plant is of great size and supervision is relatively difficult: secondly, the accidents in these factories are probably reported with a strictness not anywhere equalled by the smaller classes of factory; and thirdly, there has been in nearly all the factories of the province, as the inspector reports, a lamentable absence of safeguards. This last cause is being removed as quickly as possible. Steps are being taken to locate the conditions that underlie the relatively high accident rate, and a new classification of accidents has been introduced which seeks to bring out clearly and in a cumulative manner cases in which accidents are due primarily to neglect of the management to take reasonable precautions.

The fact that the highest proportion of accidents occurs in the biggest factories is not necessarily due to the fact that these factories take fewer precautions than smaller ones, but is largely due to the high ratio of ignorant workers to the small handful of skilled and educated officers.

The ignorance of the factory employé

The ignorant worker refuses to learn either by warnings or instructions the dangers inherent in high powered plant units, and to quote from the last report of the Inspector of Factories, "he continues to sleep under railway wagons or beside ingot moulds over which tons of molten metal may be poured at any moment, to walk on railway tracks, to ride on crane loads, to stand in a dangerous place to do work that could be done nearly as easily in a safe place, to trust to luck whether an electric conductor is alive or harmless, to undercut an excavation till a landslide smothers him; and generally to behave to an almost incredible degree as if his own actions could have no influence whatever upon his safety".

A contributory cause.

But this is not a reason that can be held to exculpate the factory manager. The cooly must be protected against himself, and the factory manager must take steps to enforce discipline and prevent the cooly from taking unnecessary risks. This is a point which the Factory Inspector, under orders of Government, is impressing very definitely on factory managers and the result should be a further diminution of the factory accident rate of the province. During the year three prosecutions of factory managers were instituted under the Factories Act, all of which resulted in conviction.

The economic condition of the province depends on that of the individual, and one of the most potent means for improving the conditions of Indian labour, both rural and urban, is the co-operative movement. This not only provides a means by which the burden of agricultural indebtedness can be materially reduced, it provides also means for the joint production and sale of agricultural and industrial produce; while lately its activities have spread to the provision of such practical benefits as land improvements, irrigation and even education. The year 1921-22 was one in which an effort was made by the non-co-operation party to arouse general contempt for law and authority and for all institutions that had any connection with Government, and the steady progress made by the movement during this period is a convincing proof that its foundations are based on firm ground, and that the people generally have realized the advantages that it brings to them.

The value of the co-operative movement.

The agricultural co-operative credit system was fully described in last year's report and it is unnecessary to recapitulate the details of the system, but during the year ending the 31st May 1922, the previous steady progress has been more than maintained. There was an increase of four central banks and 614 agricultural societies. The membership of agricultural societies increased from 95,000 to over 112,000, and the working capital from forty-eight lakhs to sixty-four lakhs, while the amount of loans given to individual members of the agricultural societies was over thirty-five lakhs. This amount was advanced at an average rate of fifteen five-eighth's per cent. against twenty-four per cent. which is the usual rate charged by *mahajans*. As the average length of the loan is for two years, there is, therefore, a saving of over six lakhs to the agriculturists, which give an average incidence of saving to each member of approximately six rupees on the years' loan. This cheaper credit which is the result of the co-operative movement is being of benefit to non-members also as in order to compete with the banks, *mahajans* are themselves being compelled to lower the rate of interest which they charge. The various objects for which loans are taken are interesting—over thirty-one per cent. were taken for payment of debts, eleven per cent. for cultivation, twelve per cent. for the purchase of cattle, nine per cent.

Progress during the year.

The effects of cheaper credit.

for payment of rent, three per cent. for improvement or redemption of land, six per cent. for purchase of lands, twelve per cent. for trade, one per cent. for purchase of raw materials, five per cent for marriages, two per cent. for house repairs, and eight per cent for other miscellaneous expenses. A very large number of the loans are, therefore, taken for productive purposes, and reports from the various central banks show the wide extent to which the provision of these loans has enabled cultivators to redeem their lands, acquire new holdings, and increase their herd of cattle.

The provision of loans at cheap rates of interest is, however, only one of the benefits which the co-operative movement brings in its train. It also is steadily encouraging saving, and members and non-members are increasing their deposits in the banks. In central banks over forty-five lakhs were held in deposit on the 31st May 1922, on behalf of members and non-members. It is safe to assume that a very large proportion of this sum would have been lying idle if depositors had not learnt to have confidence in the stability of the banks, so that the increasing amount of these deposits means an increase of wealth not only to the depositors themselves but to the province as well.

Increase in savings.

Another method by which the movement seeks to benefit the agricultural population is by popularising improved methods of agriculture. In consultation with the agricultural department improved types of seed are introduced. Pusa wheat and *dahia* paddy among other types, have both been introduced in various areas. The agricultural department first distributes the seed through the central banks, but after its popularity has been established, the central banks themselves purchase it for the use of their members. Sugar-cane cultivation has been introduced in many areas with good results. The Purnea central bank has purchased three pressing machines and pans to save members from the exorbitant fees charged by *mahajans*, from whom they used to be borrowed, while the Supaul bank has purchased thirty machines and handed them over at cost price to various of its societies. The use of manures is being encouraged, and the introduction of *dhaincha* as a green manure is being particularly successful. Attention is also being paid to land improvements, and several central banks are now in

The movement and agricultural improvements.

a position to give long terms loans for this purpose. The Banka central bank has financed several schemes for water channels and repair of embankments, and various other banks have followed their example. In Chota Nagpur a loan of Rs. 10,000 has been sanctioned by Government to be utilised by central banks in the construction of *bandhs* for irrigation purposes, and these *bandhs*, the great utility of which has already been proved by the agricultural department, are now being constructed.

Irrigation societies.

A further advance has been made during the year in the development by co-operation of facilities for irrigation, and two irrigation societies are being founded in the Gaya district. In one of the societies at Siris, where the water is obtained direct from a river, a pumping plant has been installed and a reservoir capable of irrigating at least five hundred acres prepared. This will enable the tenants within this area to cultivate the whole of their holdings, where previously a large portion had to be left fallow for lack of water. The present charge for the water will be Re. 1-4-0 per *bigha*, but as every cultivator who is likely to be benefited is being enrolled as a member, it is hoped that soon the area to be irrigated will increase and the working expenses and charge for water decrease. The scheme for the other society is on a smaller scale, and provides for the irrigation of about one hundred acres by means of a small pump drawing water from a well. The development of irrigation societies of this type should be most successful, and will be of inestimable value in increasing the fertility of the land and the economic wealth of the cultivators and the province.

Agricultural sale societies.

Another important type of agricultural society, of which the number increased during the year from twenty-three to thirty-two, is the agricultural sale society. The ordinary cultivator is usually compelled to sell his crop as soon as he has harvested it, and consequently at a time when the price is low. The sale society purchases its members' crops and pays them for them, and then sells again at a more favourable time, distributing the profit on sales proportionately between the various members. Such societies can obviously be of great benefit to the cultivator, and two of them, which worked satisfactorily, paid out to their members a profit of three and a half and two and three-fourths annas, respectively, in the rupee. Unfortunately, however, the working

of other societies has not been altogether satisfactory—there is a tendency to speculation and accounts are badly kept, but, when these mistakes in working have been rectified, there is an assured future for societies of this class.

Grain golas.

There has also been a large increase in the number of grain *golas*, and there are now seventy-two such *golas* as against thirty-one in the previous year. This increase is most marked in Angul, where the inhabitants are realizing the very great value of these *golas* during a famine, when local dealers are often unwilling to lend grain for seed purposes and can only be induced to do so by the payment of such high rates of interest that in some cases, even after three generations, the cultivator is still not free from the debt, although the amount of grain originally lent has been repaid many times over.

Non-agricultural societies.

Progress among non-agricultural societies has been equally satisfactory. At the end of the co-operative year the number of such societies had increased from 211 to 261, their membership from twelve thousand to sixteen thousand, their working capital from nine lakhs to fifteen lakhs, and the amount of loans given to members from eight lakhs to ten lakhs. These societies include a large number for the benefit of small artizans—carpenters, weavers, blacksmiths, tailors, shoemakers, and fishermen. One of the main advantages that these societies offer is that they provide loans and so enable their members to obtain raw materials at fair rates. For instance there is a society of Kansaris in Orissa who manufacture utensils of bell metal and brass. Previously they had to obtain their metal at great price from local traders; now they obtain it at a fair price from Calcutta. An interesting example of the value of such societies is the fishermen's society in Purnea. The members used to receive advances free of interest from fish exporters, to whom they were compelled to sell their fish at rupees four a maund. They now obtain loans from the society, and have been able to sell their fish during the year at an average of rupees nine a maund. Two interesting societies have also been established during the year in the Chota Nagpur division for the development of home industries, to provide cultivators with a subsidiary source of income in the

off season and in their spare hours. The number of ministerial officers' societies has increased to fifty-six.

Co-operative stores.

There are now twenty-nine registered co-operative stores in the province. These are of two types; first, those that purchase and sell at reasonable rates such commodities as are generally required by the members and the public. Of these the largest is the Jamshedpur co-operative store, which has a capital of over a lakh and made a profit last year of over seventeen thousand rupees. This store runs a motor car business, has secured the kerosine oil agency, and has a monopoly of the sale of ærated water, petrol and motor accessories. Another store which has shown a good profit during the year is one managed by the Angul central union which carried on business in salt, cloth, yarn, kerosine oil, petrol and other stores. Other interesting stores of this type are those which have been opened by students, among the most successful of which are those at Bettiah, Motihari, and Cuttack. The other type of stores are those which provide an outlet for the sale of the manufactures of their members. The most important of these are the Bhagalpur and Ranchi weavers' co-operative societies, both of which made a profit during the year. Although a number of stores of both classes are making good progress, the percentage of failures is larger than it should be, and in his last report the registrar analyses the causes that have led to this result. One of the main reasons is that stores frequently start without a definite programme and on so small a basis that they are unable to afford to pay for efficient management, while another contributory cause is that the directors are in too great a hurry to pay a dividend. In the case of a small store it is best to have as many dealing members and as few capitalist members as possible, so that the directors may be able to concentrate on giving rebates on business done rather than on the payment of dividends.

The true function of central banks.

The same eagerness to declare dividends is also noticeable in central banks, and will continue so long as there are members who become shareholders solely with the object of earning high dividends on their money. This is not, however, the true function of a central bank, which should be an agency for assisting in every manner the societies affiliated to it. The ideal system therefore is to have a central bank of which village societies alone are shareholders, who would receive the return

for their share money in the various benefits conferred on them by the bank. An interesting development by a central bank on these lines was made in Angul, where the bank engaged in both wholesale and retail trade to save its members from the excessive profits charged by money-lenders; while in some other areas, owing to societies foregoing their dividend on their shares held in the central bank, it has been found possible to reduce the rate of interest charged by 2 or 3 per cent. to those societies that were members of guarantee unions. The number of these unions of which, as was shown last year, the underlying principle is that a minimum of 5 societies join together into a separate unit with joint security, increased from 79 to 92. Their formation not only improves the working and strengthens the credit of their affiliated societies, but lessens the need for supervising staff, so that central banks are now able to give a lower rate of interest. The improvement in working caused by these unions is so marked that some central banks are now making a general rule that no new society shall be started unless it is affiliated to a guarantee union, though there are still some banks which have failed to impress on their societies the advantages that follow their formation.

Guarantee unions.

Central banks are also increasingly devoting their attention to improving educational facilities in their respective areas. Twenty-four new schools and pathsalas were opened by various banks during the year, and the total number of such institutions maintained by banks is 354. District boards are beginning to realize the valuable work that can be done by banks in improving education, and are giving block grants to banks for expenditure on education, but in addition to these grants the banks themselves are providing a considerable amount of the necessary funds, while in some cases schools opened by the banks have now become self-supporting. Some instances of the activities of the various banks in this direction may be interesting. The Balasore central bank has a school in every village where there is a society, and enforces a rule that every member must send his boys to school. In the Banka area there are eight village pathsalas which receive block grants through the central banks, and 21 under the direct management of the bank. The Daulatpur central bank

Educational and similar activities of central banks.

has six schools under its control and pays Rs. 54 a month for their maintenance. A society school at Dilarpur has been raised to the status of an upper primary school, which has become self-supporting and members are fined if they are found neglecting their son's education. Night schools have been opened in Sasaram and Khunti. These instances, which are by no means exhaustive, show that co-operative societies are doing good service in helping to solve the difficult problem of primary education. There are also signs that they are attempting to do their share in providing medical assistance. In Bhadrak and Sitamarhi during outbreaks of cholera the local bank engaged two doctors, provided them with the requisite medicines, and sent them out to disinfect wells and tanks. These are examples which show how central banks can utilize their resources for the benefits of their constituents.

Establishment of divisional boards.

As was shown last year the system of audit that has now been adopted is that of an audit federation, which is controlled by a congress to which various central banks and societies send delegates. During the year the congress decided to open divisional boards in each of the five administrative divisions of the province to consider all matters of importance connected with the movement in their areas, and also decided to levy audit fees at the rate of Rs. 5 a day from central banks and non-agricultural societies. At present all societies are not members of the federation but the number of societies affiliated rose during the year from 2,950 to 3,612. The federation press has had a satisfactory year's working and has made a profit.

Value of forests on climatic and physical grounds.

The aims and objects of the forest department are perhaps less understood than those of any other department of Government, and yet they are of the very greatest economic importance to the province. The areas under the control of the forest department may be classified into three broad classes. First, those forests the preservation of which is essential on climatic and physical grounds. It has been proved in many countries, that the destruction of large areas of forest has resulted in a deterioration of climate, followed by loss of moisture and sterility, and that the denudation of large areas of forests in the up-lands is liable to cause disastrous floods in the plains. Signs of deterioration were beginning

to be noticed in Hazaribagh and Ranchi, where private owners tempted by immediate profits have cut down vast areas of sal jungle, and as a result the climate is less favourable than formerly to the production of crops; while the harmful effects of denudation in the forest area in which the Damodar river rises have been seen in the plains through which the river flows, where devastating floods have occurred and have made it necessary for Government to consider a scheme for acquisition and reafforestation of 15,000 acres in that area. In order to counteract the climatic deterioration and waste of forest capital which is caused by reckless felling and grazing Government are prepared to undertake the management of forests for private owners, and already some areas of forest have been protected or reserved under section 38 of the Indian Forest Act. But it is a matter for regret that private owners generally are slow to recognise the advantages of scientific conservation and methodical exploitation on economic lines, and the applications for the use of this provision of this law are few. A striking instance of the benefits that may accrue to landlords from management by the forest department is furnished by the Porahat forests; these are controlled by Government under a special agreement and as a result of careful working the forest capital has been preserved and the quinquennial profits increased from Rs. 40,000 in 1911-1912 to Rs. 3,00,000 in 1921-22.

Government management of private forests.

Secondly there are forests which afford a supply of valuable timbers for commerical and revenue producing purposes such as the sal forests in the Singhbhum, Sambalpur and Angul districts. Though these forests also supply some of the needs of the surrounding population, they are chiefly managed on commercial lines, and it is by the development and proper management of forests of this class that the department is enabled not only to pay for its own upkeep, but also to show a substantial working profit. The third class of forests are minor forests containing somewhat inferior types of timber, which are managed for the protection of such forest produce as is necessary for supplying the requirements of the local population. The rights of the villagers in these areas are noted and the supply of their requirements is regulated, so that the interests of their descendants shall not be jeopardised by the harmful and excessive removal of forest produce.

Timber producing forests.

Minor forests.

About 2·7 per cent. of the total area of the province is under the control of the forest department, and for working purposes the forests are classified into (*a*) reserved forests in which, though the rights of user in favour of individuals and the public are carefully recorded when the forests are taken over by the department, no subsequent rights can accrue, and (*b*) protected forests, in which the accrual of fresh rights after the forest has been taken over is not prohibited. The interest of the department in reserved forests is chiefly commerical, but in protected forests they have to see that the villagers secure free of cost the maximum amount of forest produce which is consistent with maintaining the existing growing stock or forest capital uninjured. The necessity of regulating the rights of the villagers in the interests of posterity may be gathered from the fact that timber, fuel, bamboos and grazing grass to the value of over 3½ lakhs were removed from forests by right holders and free grantees in the year 1921-22, and it is not difficult to realize that if the removal of this large quantity of produce was not regulated the result would be the rapid destruction of the forests.

Reserved and protected forests.

The first essential for the efficient management of any forest area is the preparation of a "working plan" setting out the object to be attained and prescribing the programme necessary for the attainment of that object. The preparation of these "working plans" is a matter needing expert knowledge of the requirements and rate of growth of the various trees in the forest, and as this depends largely on the results of scientific research, and as new discoveries are continually being made, it is very necessary that these "working plans" should be kept up-to-date. It is therefore extremely unfortunate that owing to shortage of staff during the war the revision of "working plans" was delayed. Six new appointments were however made to the Imperial Forest Service in 1921, while a further two appointments have been made this year, and though the department is still under its sanctioned strength, ground lost during the war has to some extent been made up. Considerable progress has been made in revising existing working plans, and new schemes have also been prepared for the protected forests.

Preparation of working plans.

The preparation of working plans provides for the efficient management of the forests, but besides this a forest officer has

other important duties in protecting the forests from injury by fire and from illicit grazing and felling. Fire protection is, in particular, of great importance, and imposes a severe strain on the forest staff. The method of protection generally adopted is to divide the forest into blocks of convenient size by cleared lines, which act partly as checks to the spread of fire and partly as bases for counterfiring. In 1921-22, 108 separate fires occurred, and the area damaged by fire was more than a hundred thousand acres out of a total protected area of eight hundred thousand. In eleven of these cases fires were proved to be due to incendiarism by the local population, who set alight the forest to improve the growth of fodder or sabai grass and to drive away wild animals, while twenty-five fires started in outside areas. During the year there was also a slight increase in the number of cases of unauthorized felling and grazing which is reported to have been due in Chaibassa and Puri to lawlessness encouraged by the non-co-operation movement.

Protection of forests from fire

and from unauthorized felling and grazing.

In order to make investigations for the purpose of preparing working plans, and in the ordinary course of his forest work, it is absolutely essential for a forest officer to be touring continually and in all seasons of the year. The forest officer's ordinary duties impose on him a great physical strain, and it is the policy of Government to alleviate the hardships of the life as far as possible, by the provision of suitable quarters and rest houses for all classes of officers. The accommodation at present provided is far from sufficient, and a building programme extending over seven or eight years has been drawn up by which, if carried out, the needs of the department will be met. Unfortunately during 1922 progress with this programme has been retarded by the refusal of the Legislative Council to vote the full amount of money required for the purposes.

Necessity of adequate buildings for forest officers.

Though, as has been shown above, a very important duty of the forest department is to provide for the wants of the agricultural population surrounding the forest, the part of their work that is most interesting from the point of view of the general public is the commercial side. The accounts of any one year are

Profits of the department.

apt to be misleading, partly because the present method of presenting them does not distinguish clearly between capital and revenue expenditure, and partly because the accounts of the Porahat division, the net profits of which are made over to the proprietor every five years, have in the past been included in the totals. It may be stated, however, that in the last quinquennium ending with the financial year 1921-22, the profits of the department were about eighteen lakhs of rupees, and of this dividend fifteen lakhs belonged to Government and three lakhs were paid to the Raja of Porahat.

Major products.

The chief major products of the forest are timber and fire wood. Large quantities of both are extracted from the forests yearly, and during the year 1921-22 the amount of timber extracted was valued at over 3½ lakhs. Exploitation of timber is either carried out through the agency of the department, which fells and cuts the wood and sells it by auction at certain depôts, or through the agency of private purchasers, who fell and extract the timber for themselves and pay a royalty on it. It has been generally found that the best financial results are obtained by departmental exploitation, but this requires a large capital outlay and it is doubtful if the necessary funds can be supplied. Exploitation by purchasers, however, is apt to lead to certain difficulties. Purchasers on a large scale will not come forward unless they are granted a lease for a considerable period, as they have large initial expenses in the collection of a labour force. The necessity for granting long leases has sometimes disadvantages; for instance in the mining industry a large demand occurred for pit props, but the two forest divisions which are most suitably situated for supplying the mines are under a long lease to a timber firm, and were almost entirely debarred from profiting from the demand. The issue between departmental exploitation and exploitation by purchasers is therefore one that is difficult to solve, but in the present financial position of the province it is probably necessary, for the present at any rate, to continue in most cases the system of exploitation by purchasers.

Establishment of teak plantations.

The climate of most of the province is not suitable to teak, and the most valuable timber which the forests now produce is sal. An interesting experiment, however, is being made of introducing teak in Puri, where the climate is suitable, and the

establishment of teak plantation under what is known as the '*toila*' system is being tried. This consists in making over suitable areas of forest land to villagers, who cut down and burn the useless jungle, and for a year or two obtain good crops off the virgin soil. At the same time the cultivators sow seeds of teak on the area of the future forest. In this way in a very economical manner an area of 300 acres has been converted from more or less useless forest into a valuable teak plantation. A casuarina plantation has also been started in Puri, and was largely extended during last year, so that the total area now planted is 1,400 acres. The trees are planted along the sandy wastes of the foreshore, and will provide a much needed fuel supply for Puri town. The plantation will also be of advantage to the neighbouring cultivators, as it will to some extent prevent the sea winds from blowing sand over their lands. The scheme is an excellent one and should yield a good return on the money invested, but as local proprietors have always placed an exaggerated value on their holdings of sandy waste near Puri, the expansion of this particular plantation may be stopped: enquiries are now being made with a view to starting similar plantations further east, where land can be obtained at more reasonable rates.

Casuarina plantation at Puri.

Of minor forest produce the most important is lac, of which this province supplies more than half the total world's supply. The present methods that are employed in its cultivation are however wasteful; too large a quantity of the lac crop is put on the market, with the result that there is an insufficient quantity of brood or seed lac remaining for the propagation of the next year's crop. With the intention of encouraging improved methods of cultivation a demonstration farm has been established at Kundri in the Palamau district, and it is hoped that this farm will show to lac growers the advantages of improved methods of cultivation based on scientific procedure. During the year also an officer of the department has been specially investigating the whole position of the lac industry in Bihar and Orissa, and there is good reason to believe that as a result of his enquiries it will be possible to bring larger areas under lac cultivation. There is little doubt that there are many areas in the Hazaribagh and Palamau districts,

Wasteful methods of lac production.

Improvements attempted by the forest department.

which, with protection and cultivation, could yield a considerable amount of revenue from lac, as these districts are particularly suited to the growth of the lac bearing tree called *palas*. Another minor product from which Government hope to get an increase of revenue is bamboos. Bamboos can be used in the manufacture of paper pulp, and a survey was undertaken in Angul and the neighbouring States of Orissa, to ascertain whether bamboos could be economically extracted in sufficient numbers to make the establishment of a paper pulp factory at Cuttack a financial success. The result of the survey was promising, and Government are now considering the terms on which a lease should be granted for the extraction of bamboos: as soon as these have been settled, tenders will be invited.

Bamboo survey of Angul.

Another minor product from which an increase of revenue is expected is charcoal: departmental operations have been started in Sambalpur on a fairly large scale, and there are distinct possibilities that an important charcoal export trade can be successfully built up. The initial expenditure incurred in organizing this operation attracted some attention in Council during the budget debate, though the motion for reduction was subsequently withdrawn. As has been shown above, the average annual surplus of forest revenue over expenditure is 2½ lakhs, and a reinvestment of a certain portion of this surplus is bound to be amply justified in the near future by a substantial increase in revenue.

Departmental charcoal operation.

An interesting example of the value of scientific administration of forests is to be found in the Feudatory States of Chota Nagpur and Orissa. Forests provide an important share of the income of these States and in 1921-22 the revenue received from forests amounted to over 17½ lakhs—nearly 20 per cent. of the total revenue—which is the highest figure that has yet been attained. The revenue from forests in the various States has been increasing steadily in recent years, and there can be no doubt that this is due to the management of the forests on scientific lines. In all the States reserves have been formed and rules and regulations have been drawn up. Village forests have been set aside for the needs of the people, and coppice areas opened for the benefit of those

Forests in the Feudatory States.

people who are far off from any village forest from which to get their requirements in fuel and poles. In the past the forests have been recklessly exploited, and large timber has of late become scare in the majority of the States. Forests, however, which still contain valuable timber are now being worked under proper leases and regulations, and in those, in which such trees as remain are not yet of exploitable size, considerable income is being derived from the development on scientific lines of other forest products, such as lac, tassar, khair, kuchila and sabai grass. The result is that the maximum revenue is being obtained and forest capital is no longer diminishing, as it had been previously, but is steadily increasing.

Mineral wealth of province.

The importance to India of the mineral wealth of this province can be judged from the fact that in 1918 the value of its mineral production was nearly four million pounds sterling out of a total of fifteen and three-quarter million for the whole of India. This was the highest production of any province, the next highest being that of Burma with just over three million. The most important mineral deposits in the province are coal, iron ore, copper and mica, and the possession of large deposits of coal and iron ore in close proximity makes it certain that the province is destined to be the chief smelting centre of India.

Coal.

The total output of coal in the province was in 1921 thirteen million tons out of a total for India of eighteen million tons. The most important field is the Jharia field, which alone produces sixty per cent. of the coal raised in India. Next in importance are those portions of the Raniganj field which lie in the province, and the Bokhara mines in Hazaribagh which are at present in process of being opened up and in which two new collieries of importance were opened by railway companies during last year. Other fields which are already working are the Giridih fields, the Hinginrampur mines near Sambalpur, and the Auranga and Hutar fields in Daltonganj. In addition to the existing fields large quantities of first class coal have been located in the Karanpura field in Chota Nagpur and in the Talcher field in the Orissa Feudatory States, the development of which only depends on the provision of adequate railway facilities.

The number of coal mines in the province in 1921 was 522, employing an average of over 126,000 persons daily. The average Indian labourer is however not a good miner, and consequently the average output of coal per person employed (about 100 tons a year) is very little more than half the output per person in the United Kingdom. The inefficiency of the Indian miner also results in a high accident rate. The death-rate per million tons of coal raised at all Indian mines in the five years ending 1921 was very nearly 14, while in England during the ten years ending in 1918 the death-rate per million tons raised was only 5·10. A satisfactory reduction however took place in the number of accidents in 1922, when the death-rate fell to 11·6 per million tons raised. A large proportion of these accidents—in 1921, 37 per cent. of the total number—was directly due to the fault of the deceased or his fellow workmen.

Working of the mines.

During 1922 the output of coal was retarded by several factors; the strike on the East Indian Railway in February, March and April resulted in a short supply of wagons, and caused a reduction of output at a time when labour was plentiful and extraction cheap. During the heavy monsoon rains many mines, particularly in the Jharia coal field, were flooded, while later in the year the harvesting of unusually good crops diverted labour from the coal mines. Some loss in output was also caused by fires due to spontaneous combustion, the most serious of which was not under control at the end of the year. Fires of this description could be prevented by the general adoption of a system of filling sand into thick seams of coal as they are worked. The system, however, is expensive, and the extra cost involved has prevented mine owners from employing it except at two large collieries situated on the banks of rivers which furnish ample supplies of sand.

Difficulties in 1922.

One of the most difficult problems in the coal fields is the labour supply. There are few resident miners, and the great majority of the labour force return to their homes for the sowing and cutting of their crops. There has consequently been a considerable advance during the year in the province of mechanical methods of extracting coal, and most of the large mine owners have installed coal cutting machines

Labour supply.

driven either by electricity or compressed air. Another considerable difficulty is the provision of an adequate supply of wagons for the collieries. A detailed scheme for the supply of wagons was, however, drawn up by Government towards the end of the year, which should help to solve this difficulty in the interests both of the consumers and the collieries.

Wagon supply.

The iron ore deposits in the province are situated in the district of Singhbhum and in the Feudatory States. In Singhbhum during 1921-22 a new mine was opened, which has increased the total output of the district from 110,000 tons in the previous year to over 236,000 tons. This mine, however, has not yet been provided with transport facilities, and the whole of the ore mined there is lying stacked on the ground pending the completion of a railway line. Development of the iron ore industry in this district is bound to continue. The deposits of hematite ore in the Kolhan subdivision which have recently been discovered are of good quality and in enormous quantity, and, as soon as railway facilities have been provided to link them up with the coal fields to the north, where coal suitable for blast furance coke is available, a large increase in output is assured. In the Feudatory States the chief iron ore deposits are in Mayurbhanj, Keonjhar and Bonai. The Mayurbhanj deposits supply iron ore to Tatas' Iron and Steel Company, and in 1921-22 this company exported nearly 440,000 tons of iron ore paying the State a royality of fifty-five thousand rupees. The Keojhar and Bonai deposits have not yet been made accessible by railway communication.

Iron ore.

The only firms at present producing pig iron are the Bengal Iron Company, which is situated just outside the province in Bengal, the Tata Works at Jamshedpur and the Kirtyanand Iron and Steel Works, which have recently started operations at Sitarampur just across the Bengal border. The Bengal Company can produce a daily output of 450 tons of iron, and Tatas a daily output of 900 tons of pig iron and a monthly output of 17,500 tons of steel ingots.

Iron and steel works.

Singhbhum also provided the whole of the output of copper ore that was extracted in British India in 1921-22. The Rakha mines, which are managed by the Cape Copper Company, supply the whole of

Copper ore.

this but their development is being retarded by the wagon shortage which makes it difficult to secure the necessary fuel and flux for refining the ore. Prospecting operations are also being conducted on a large scale in the vicinity of the Rakha mines, but the low price of the metal is likely to discourage for the present any considerable expansion.

Mica.

India provides over 70 per cent. of the world's supply of mica, and more than three-fourths of this is mined in Bihar and Orissa, the chief centre being Kodarma in Hazaribagh. The present mining methods adopted are very wasteful, and Government are considering whether improvements cannot be effected.

Railway facilities.

The development of the mineral resources of the province depends largely on the improvement in railway communications. Something has already been done in this direction. Jamshedpur is being joined to the coal fields by a double line. A new line—the Amda-Jamda—is being constructed to link up the iron ore deposits of the Kolhan with the iron and steel works in Dhanbad. This line was almost completed at the end of the year. Other important projected lines are those to give access to the Karanpura coal fields from the west and the south, to open up the extensive limestone deposits lying between Katni and Daltonganj, and to connect the Talcher coal fields in Orissa with the main line to Madras.

False Point harbour projects.

In connection with this last project the possibility of establishing a harbour at False Point, which is on the Orissa coast about 50 miles due east of Cuttack, has been under the consideration of the local Government. The Council voted during the year Rs. 10,000 for the purpose of a preliminary survey, and the project has been examined by an expert harbour engineer whose report was received after the close of the year. A harbour at False Point would encourage industrial development in Orissa and would enable the country to export more easily the excess rice, which it produces in a favourable year, while it would at the same time furnish an outlet for the minerals and other natural products of the hill country lying behind the Orissa plains. But the project in any case must be a costly one, and the report points to the conclusion that engineering difficulties and natural disadvantages may raise the cost of construction

and maintenance to a degree that would make it impracticable to proceed with the scheme. Great as the advantages of this harbour would be to Orissa, it would not be possible to undertake the work unless the scheme promised to be, within a reasonable time, if not actually remunerative, at least self-supporting.

Maritime trade.

The present maritime trade in Orissa is almost negligible. There was however in 1921-22 an export of rice and gram to the value of about 9 lakhs from Puri to Madras, where owing to the outbreak of the Moplah rebellion there was a large demand. Local non-co-operators took advantage of this opportunity to set up a grain committee which made unsuccessful efforts to prevent the rice being shipped.

Trade with Nepal.

The value of the trans-frontier trade with Nepal during 1921-22 was the highest recorded since 1912-13, and amounted to Rs. 530 lakhs, of which imports accounted for Rs. 351 lakhs. The chief imports were raw materials, of which food grains represented 83 per cent. of the total value—the imports of rice alone amounting to 35 lakhs of maunds valued at Rs. 165 lakhs. Exports were composed chiefly of manufactured articles, of which cotton yarn and piece goods of foreign origin were the most important.

Trade by rail and river.

The chief imports into the province from other parts of India were cotton manufactures (Rs. 12,46 lakhs), metals, manufactures, and railway stock (Rs. 1,41 lakhs), while the chief exports were coal and coke (Rs. 5,22 lakhs), grain and pulse (Rs. 417 lakhs more than the imports), lac (Rs. 4,86 lakhs), metals, manufactures, and railway stock (Rs. 4,95 lakhs), sugar (Rs. 1,50 lakhs over the imports), and tobacco and jute (over Rs. 100 lakhs each). The large imports of cotton manufactures and iron and steel manufactures emphasize the importance of the development of the hand-weaving and iron and steel industries, to which reference was already been made earlier in this chapter.

The effect of non-co-operation on relations between landlord and tenant.

During the last year the disturbed political conditions reacted unfavourably on the relation between landlord and tenant. Not only did the non-co-operation party deliberately attempt to exploit agrarian discontent for its own purposes, but it was also inevitable that the general unrest created by activities.

directed to an end not clearly comprehended by the people, should find expression in the voicing of real and tangible grievances. Nationalism incarnate in the form of exemption from the payment of rent was easily understood and eagerly welcomed. This phase of the movement was particularly marked in North Bihar, where rents were withheld on a large scale in the Hathwa estate in the Saran district and in some estates of European planters. In some cases the certificate procedure was extended to those estates under Chapter XIIIA of the Bengal Tenancy Act. In the Kanika estate in Orissa there were serious disputes between the Raja and his tenants, while in Sambalpur and Chota Nagpur the raiyats have insisted on their rights in water and to jungle produce with a persistence that has been a fruitful source of friction. In Chota Nagpur also the Tana Bhagat movement, which in its inception was purely directed to the moral and social advancement of its adherents, tended to identify itself with a no-rent campaign. In addition to the disturbance caused by the prevailing political unrest, the Bihar Tenancy (Amendment) Bill has been occupying the attention of the landlords and the more enlightened among the tenants, and there is no doubt that the general discussion of the vexed questions with which that measure deals has tended, for the time at least, to accentuate the troubles which it was designed to allay.

The Bihar Tenancy (Amendment) Bill.

In the district of Gaya an unprecedented situation has arisen. Very large areas in that district were held on produce rents, and since the settlement operations, which extended from 1911 to 1918, applications for the commutation of rent are being filed at a rate with which, in spite of the deputation of a number of special officers, it has been found impossible to cope. It is not necessary to attribute this to political unrest. Gaya was the last district to come under the original settlement operations, and the produce rent system, which was closely connected with an extensive but decaying system of artificial irrigation, was there more widely extended and more rigorous in form than elsewhere in the province. Before the Settlement Department reached the Gaya district the raiyat was not aware of his rights, and indeed in the more remote parts it was hardly realized that a raiyat was more than a tenant-at-will in his produce-rented lands. The friction produced by the applications, which are bitterly resented by the

Commutation of produce rents in Gaya.

landlords, is great, and the fact that the hearing of these cases must necessarily be prolonged is causing considerable anxiety to the Local Government. It is fortunate that agricultural conditions have been favourable throughout the year 1922 and that these causes of unrest have not been accentuated by economic distress.

Uncertainty as to their existing rights is one of the more fruitful sources of dispute between landlord and tenants, and while settlement operations have for the moment an irritating effect and tenancy legislation is liable to widen the breach for the time being, there is no doubt that a clear definition of the rights and obligations of the parties, and an impartial record of them, are the best guarantees of peace in the end.

Settlement operations during the year.

During the year 1922 the Settlement Department took up the survey and record writing of the last area in the province which remained untouched by its programme of original work, the western half of the Dhanbad subdivision of Manbhum, including most of the colliery area. The same year witnessed the inception of revenue resettlement operations in the Orissa division. Revision was commenced in the Santal Parganas in the month of October, and was in progress in Sambalpur throughout the year. The Sambalpur district is administered under the Central Provinces system, but it has been part of this province for nearly twenty years and the revenue administration of the district has not kept pace with the development of the agrarian law in the Central Provinces. The codification of the revenue and tenancy law affecting the district is now under consideration, and will be taken in hand after the completion of the settlement operations. A new Tenancy Act for the district of Sambalpur will complete the code of the law of landlord and tenant in the province.

Difficulties encountered by the Settlement Department.

General unrest has hampered to some degree the work of the Settlement Department. Early in the year there was an attempt to boycott the proceedings in Sambalpur, where the non-co-operators took advantage of the temporary inconvenience caused by the presence of the settlement staff in a village to persuade the people to obstruct progress by withholding labour and necessary supplies. The movement was short lived. The confidence, which people in this backward tract still possess in their local officers, enabled the latter without great difficulty to

overcōme the opposition. In Balasore operations were postponed till after Christmas owing to an objection, made by the raiyats and repeated in the Legislative Council, that survey operations would injure the standing crops. The apprehension was groundlēss and the delay caused regrettable, but there is no doubt that the decision to postpone the wōrk for a short time was a wise one and contributed in a large measure to break down the organized opposition.

The Legislative Council and settlement operations.

Settlement operations have attracted a large share of the attention of the Legislative Council. There were objections both on the part of landlord and tenant, the former fearing somewhat their educative effect, the latter objecting to the temporary inconvenience caused by the presence of the settlement staff in their villages, and both parties being apprehensive of the trouble which the disturbance of settled conditions is likely for the moment to arouse. When the budget was introduced in the early part of the year, there were motions for the omission of the grants both for the Orissa and the Santal Parganas settlements. The motion regarding the latter was not pressed, but in the former case the mōtion was only defeated by a small majority on a division. The reasons urged for the postponement of the operations for a year were that Orissa had suffered recently from serious flood and the settlement operations were likely to retard the process of recuperation. An earlier motion, which was however withdrawn, perhaps indicated more clearly the real ground on which the landowners wished for a postponement of the revision. In that debate it had been urged that the revenue of landlords in the temporarily-settled estates should not be enhanced except in cases where it could be proved that the lands of the ēstate had been settled at privileged rates in the previōus settlements. The manner in which the Council received this motion showed that the majority of the members were not prepared to surrender a potential increase of revenue merely in order to save a portion of the province from a justifiable enhancement of its contribution to Government.

Land revenue.

There is little of interest to record in the administration of land revenue; both the demand and the percentage of collection increased slightly in the year 1921-22, and the chief interest of the report of that department is in the amount of remissions of land revenue that were

granted. In 1921 the Council passed a resolution for the appointment of a committee to consider whether any parts of the district of Balasore and Cuttack, affected by the floods of 1920, were eligible for a remission of revenue. The committee was appointed, but it was sometime before it was able to submit a full report. In the debate on the resolution Government had laid great stress on the need for seeing that remissions made to proprietors carried with them a definite obligation to grant remissions of rents to raiyats in equal proportion, and this principle was followed in passing orders on the report of the committee. It was finally decided that half a year's revenue should be remitted to eighty-eight landlords, who had engaged, or were ready to engage, to remit one half of the rent due from their tenants. Government themselves had shown that they as landlords were prepared to do this in the case of their own tenants, as in the Khurda estate in Balasore, which was also affected by the flood, they had sanctioned in the year 1921-22 remission of rent amounting to over Rs. 5,000. Remissions of grace were also granted to tenants of Government estates in the Santal Parganas who enlisted for military service during the war.

Remission of revenue.

The number of estates under the direct management of Government fell from 327 in 1920-21 to 311 in 1921-22, of which 77 were held on behalf of private individuals: all of these estates were managed by the Board of Revenue through the agency of Commissioners and Collectors. The annual demand has increased from last year by over Rs. 20,000, and now amounts to Rs. 19,44,497. It will be recognized that the work of management of estates in all parts of the province with a rent roll of that size is a matter of considerable difficulty and a rate of 8·74 per cent. for management charges cannot be considered excessive. Reference has already been made to the remission granted to tenants of certain estates, and another method by which Government tries to set an example to other landlords is by setting aside a certain sum of money (5·5 per cent of the total demand) every year for improvements. This sum is distributed by the Board to Commissioners, who use it in their respective divisions as they think best. Last year practically half a lakh was spent on tanks, wells, drainage, irrigation and embankments, and another Rs. 30,000 on the improvement of

Government estates.

communications. Previously also Government used to allot a sum of Rs. 20,000 annually for the improvement of education in their estates, but this allotment has now been discontinued as Government pay to the District Board cess at the full rate of 6¼ per cent. on the total amount of rent collected.

Trust, wards and encumbered estates.

There is another important class of estates in which, though Government is not the landlord, the management is actually carried on under the supervision of the District Officer. This class comprises first trust and attached estates administered by the Collector subject to the control of the higher revenue authorities; secondly wards estates which are managed either by officers of Government lent for the purpose or by salaried managers; and thirdly the encumbered estates taken over under the Chota Nagpur Encumbered Estates Act. At the end of the financial year 1921-22 there were 129 of these estates, and during the remaining nine months of the year one estate has been taken in charge while twelve estates have been released. Sixty-four of the estates remaining at the end of the year are encumbered estates in Chota Nagpur. The current demand of all the estates under management is over sixty lakhs, and during 1921-22 the percentage of collection to current demand was 101·6, though there is still an outstanding balance due to all estates of over forty lakhs.

Indebtedness of these estates.

Most of the encumbered and wards estates are heavily embarrassed, and one of the most important duties connected with the management is the gradual repayment of these debts. Progress was satisfactory last year and the balance of debt was reduced by a little more than 17½ lakhs, while it is expected that as a result of a generally good harvest an increased amount of debt will be liquidated during the current year. A number of these estates are situated in places in which there is a probability of mineral deposits, and considerable attention is being paid to the subject of prospecting and mining concessions. During the year ending the 31st March 1922 in all the estates nearly five lakhs was collected from mineral concessions, as compared with just over four lakhs in the preceding year. There are now 134 leases covering over 224 thousand acres, the most important of these being 74 leases covering 16 thousand acres of coal

The value of their minerals.

bearing land, which yielded over four lakhs in royalties and other collections. Important developments have also been made during the same period in the grant of prospecting licenses, and there are now 22 licenses in force covering 824 thousand acres and yielding an income of Rs. 56,000, against 31 licenses covering 926 thousand acres and an income of only Rs. 15,092 in the previous year.

Illustrated by the Ramgarh estate.

The importance of these mineral deposits to the estates in which they lie is obvious, and is well illustrated by the case of the Ramgarh estate. This estate granted certain firms a prospecting license over the Karampura coal field which lies within its boundaries. A rent of Rs. 8,000 a year was charged and in addition the estate was able to raise from the firms a loan of Rs. 9 lakhs without interest to be set off against future royalties. This lease formed the subject matter of a question in Council, in answering which Government was able to show the great advantage to the estate that had accrued from entering into it.

Cost of management.

The charges for management of these estates have been steadily growing for some years, and in the year 1921-22 rose from 13·5 to 14·6. The increase is mainly due to the general revision of the rates of staffs. The rate prescribed by the Board of Revenue for management is only 10 per cent. This rate, however, was fixed many years ago when it was possible to obtain managers and subordinate staff at a much lower rate than is now current, and it is obviously impossible in many cases to work down to the prescribed rate. An increase of 4·6 per cent. over the pre-war rate cannot be considered excessive. The rate is calculated on the rent and cess demands only, and excludes receipts from forests or minerals, and the question of including such receipts in working out the cost of management is now under consideration by the Board of Revenue.

Schools, dispensaries and improvements.

These estates do considerable good to the districts in which they are situated by providing facilities for education and medical relief, and during 1921-22 slightly over 2 lakhs were expended in this manner. The Bettiah Raj pays for the entire maintenance of a high English school and a Sanskrit school, and also spends over 40,000 rupees on dispensaries, including the entire maintenance of the Lady Dufferin Hospital at Bettiah. During

last year the Banaili estate spent 36,000 rupees in purchasing war bonds for the maintenance of a free middle English school at Koilakh, which the proprietress is starting in memory of her husband, and various other estates spend considerable sums on the encouragement of education and the provision of medical relief. Agricultural improvements on the estates themselves are also not neglected, and over a lakh of rupees was spent during the same period on such improvements. These consist generally in the building of *bandhs* or water channels, though considerable good is also done by the introduction of improved type of seed in consultation with the agricultural department.

Estates released during the year.

The most important estate released was the four annas Barari estate in Bhagalpur. This was released owing to the attitude of the ward's mother who besides interfering in the management of the estate refused to obey the orders of the Board regarding the education of the ward and so made it impossible to continue his education in a satisfactory manner. Considerable difficulties were found in the management owing to the undivided nature of the property, so that the collection of rent was not always easy and the accounts with co-sharers became complicated, but the debts of the estate were considerably reduced during the period in which the estate was under the management of the Court of Wards. Another estate that was released was that of Jaria in Ranchi; this had been under management for 22 years, and during that period owing to the purchase of villages, consequent on good management, the rent roll had been increased from Rs. 24,000 to Rs. 32,000, while Rs. 85,000 in cash and war bonds were handed over to the new proprietor on its release. The remaining estates released were mostly encumbered estates in some of which the release was consequent on the payment in full of all the debts, though in other cases the estates were found to be so hopelessly involved that it was impossible ever to arrange for the payment in full of the debts and consequently their retention was useless.

Diagram illustrating certain statistics relating to the police force of the province

Proportionate area for each policeman

Proportionate number of population for each policeman

Proportionate cost of police per thousand of population

Reg. No. 71 R –1928

Drawn & Zincographed in the B. & O. D. O. Gulzarbagh

CHAPTER V.

Government and the maintenance of the public peace.

The maintenance of law and order and the administration of justice are among the most important problems with which every Government is faced. The subject naturally falls under three headings; first, the work of the police, which consists primarily in the prevention and detection of crime, in the preservation of the public peace and in the bringing of offenders to justice; secondly, the administration of justice in the courts of law, and thirdly, the system of punishment which comprises the whole subject of jails.

The task of the police.

The difficulties with which the police are normally faced are enhanced in this province by the comparative smallness of their numbers. There is only one policeman to every 6·1 square miles and to every 2,545 persons, and the diagram on the opposite page shows that this is a smaller proportion than in any other province in India. In the Central Provinces the proportion to total area is smaller but the proportion per head of population is nearly double. It will be seen also from the diagram that the expenditure on police, per head of population, is lower in this province than in any other province in India. A second difficulty, which stands in the way of successful police work, is the apathy of the Indian public and their unwillingness to help the police. This unwillingness is no doubt largely due to the feeling that the police will be unable to protect the informant from the retaliation of the criminal or his friends, but until the public learn to co-operate with the police, the prevention and detection of crime must be difficult. There is also the tendency to regard the constable as a symbol of oppression and restraint; wide publicity is given to exaggerated reports of the occasional misdeeds of individuals, and little notice is paid to the general good work of the force as a whole. Another difficulty is the poor standard of literacy that exists in the lower ranks; in 1921 only 68 per cent. of the constables were reported to be literate, and though this is a rise of 18 per cent. over the figures for 1912, the number cannot be considered large and compares very unfavourably with 91 per cent. which is the percentage in Madras.

During the last two years these normal difficulties have been augmented by the non-cooperation movement. Throughout 1921 and the early part of 1922 the police were consistently abused, held up to ridicule and described as a "limb of the Satanic Government". The people were instructed to give them no help and to take no cases to them. At the same time the open flouting of authority, the discrediting of Government, and appeals to racial feeling all combined, as has been shown in Chapter I, to create a general spirit of lawlessness, which found expression in various outbreaks of disorder more or less serious. This all added very considerably to the work of the police. They had to devote their attention largely to disturbances arising from political causes, they got even less than the usual amount of support from the people, they were frequently opposed when making arrests, and generally had to conduct their duties in an atmosphere of public opposition. The manner in which the police carried out their duties in these circumstances was highly praiseworthy.

The effect of non-co-operation.

The discipline of the force throughout the year reached a high standard. In spite of vigorous efforts to tamper with their loyalty only 36 of the subordinate police out of a total sanctioned strength of over 14,000 resigned on account of non-cooperation during 1921 and only four in 1922. The number of cases in which it was necessary to take departmental action against the police was unusually small. In spite of very considerable provocation there was only one serious case against the police throughout the year, and though in all 224 cases were instituted against various police officers, 52 of these were found to be false, while 58 were dismissed under section 203, Criminal Procedure Code, 40 were compromised, and in only 26 were convictions obtained. None of those cases was serious, and the conviction of only 28 officers out of a total force of 14,975 speaks well for discipline and efficiency.

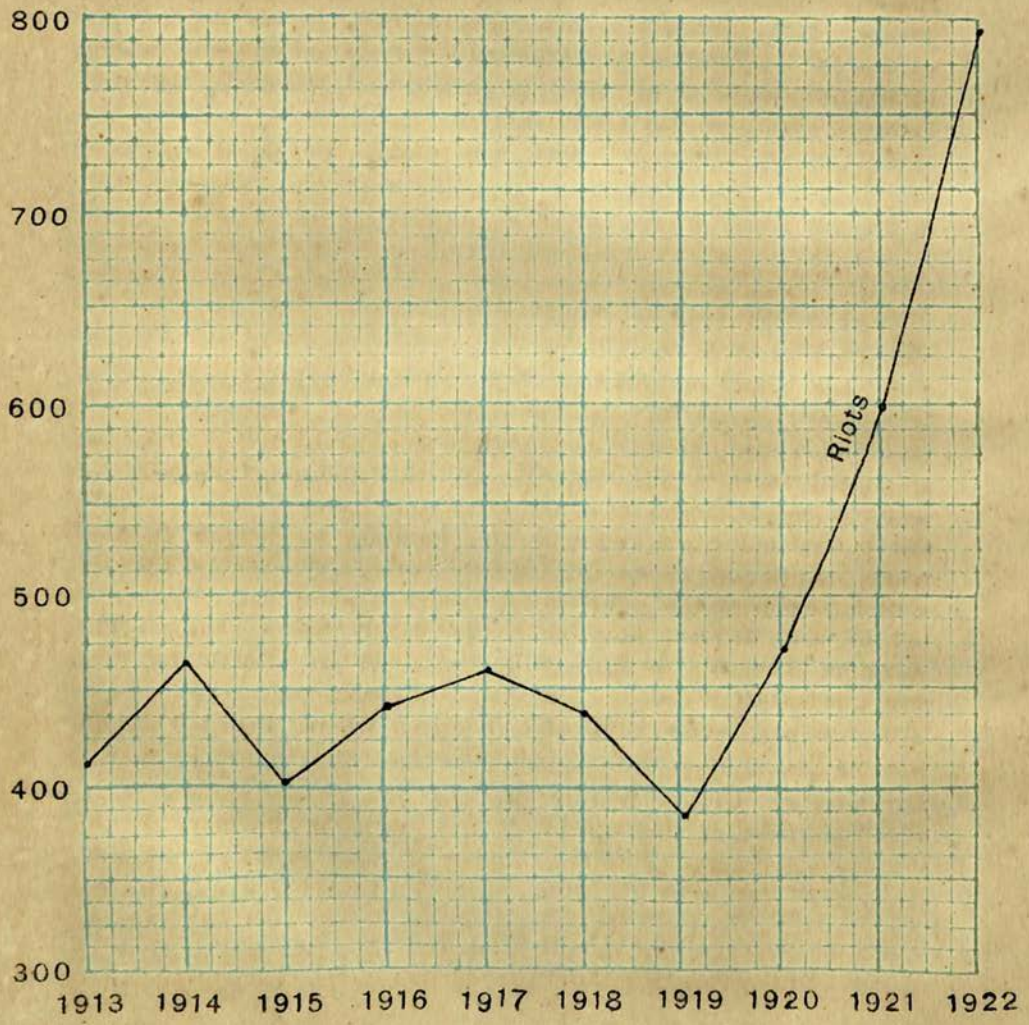
Discipline of the force.

During the year both mounted and unmounted military police as well as armed police were frequently employed to maintain the public peace in places affected by the non-cooperation movement, or in connection with the strikes which occurred on the railways, at Jamshedpur and in the colliery areas. The manner in which these duties were carried out was highly

Extra work caused by non-co-operation and strikes.

Diagram showing the number of riots in Bihar and Orissa for the last ten years

(Note — 174 cases which were the outcome of the Bakrid riots in 1917 in Shahabad, Gaya and Patna are classed as dacoities and have been omitted from this graph)



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satisfactory, and the fact that at Jamshedpur, when 570 police officers of all ranks were on strike duty, no single incident could even be exaggerated into a complaint against them is a high tribute to their discipline. The ordinary police force in the province was, however, insufficient to deal with all the situations that arose. In the latter part of 1921 disturbed conditions necessitated the appointment of additional police in portions of the Champaran and Muzaffarpur districts, and during 1922 it was also found necessary to appoint additional police at Kateya in the Saran district, where there was a serious outbreak of crime, in the Cuttack portion of the Kanika estate and in certain diara areas of Bhagalpur where disputes existed between landlord and tenant. Besides this, assistance had to be obtained from the military during the strikes on the East Indian Railway and at Jamshedpur.

Increase in the number of riots.

The increased spirit of lawlessness, which has accompanied the non-cooperation movement, is illustrated by the marked increase that has taken place in the number of riot cases during the last two years. It will be seen from the graph on the opposite page that the number rose from 470 in 1920 to 598 in 1921 and to 778 in 1922. A number of these cases were the direct outcome of non-cooperation propaganda. The attempted boycott of foreign cloth and of liquor shops and attempts to enforce the decisions of self-constituted panchayats, accounted for a number of cases at the beginning of the year, while in Orissa there were twenty-nine riots directly concerned with the general fire panic and with the agitation in Kanika, both of which, as has been shown in Chapter I, were very closely connected with non-cooperation. Most of the cases were, however, riots arising out of land disputes or other comparatively minor causes. The weapons ordinarily used in petty riot cases are *lathis*, and it is a serious feature of the year that the use of spears was on the increase. This was particularly noticeable in Saran where, during 1922, 18 persons died of spear wounds and 36 persons were injured by spears.

Increased number of rescues from police custody.

Another serious feature in the riot cases of the year, also indicative of the spread of the spirit of lawlessness, was the number of cases in which attempts were made to prevent arrests by the police, or to rescue persons already arrested. Mention has already been made in Chapter I of cases of this description which occurred in Kanika and in Ranchi and may

be described as political. Besides these, however, there were numerous other cases, to which no special political significance attached. The rescue from Kateya police station by a crowd of 100 men of a notorious dacoit, and the rescue from the Bihar sub-jail of under-trial prisoners by another crowd are two of the most noteworthy instances of this latter class.

Increased number of dacoities.

There has also been a large increase in the number of dacoities reported during the year. In 1920 their number was 274, in 1921 there was an increase to 310, and this year the number has again risen to 403. The increase since 1920 cannot be attributed to economic causes, but is due partly to a large increase in Purnea, where it appears that the dacoits have temporarily got the upper hand, and partly to the prevailing general contempt for authority. The outbreak of dacoity in Purnea has now reached serious dimensions, and, both this year and last year, about 130 cases were reported. A feature of these dacoities is the insignificant value of the property stolen in the majority of the cases. This is attributed partly to the fact that dacoity is often resorted to as a means of revenge or intrigue, and partly to the preference shown by the local criminal for dacoity as against burglary, the explanation being that entry into a house with walls of thatch and bamboo—which is the commonest type of house in Purnea—cannot be effected as noiselessly as through walls of mud. The whole of the district is full of dacoit gangs, and while the police are endeavouring to deal with a gang operating in one locality another band becomes active elsewhere. It is not possible to deal effectively with an outbreak of dacoity of these dimensions with a police force of only one man to 6½ square miles, and from the beginning of this year the staff has been increased, but even now the force in Purnea is only one man to 5½ square miles. There is a point beyond which economy on police expenditure is dangerous, and the outbreak of dacoity in this district which was due very largely to the paucity of staff shows the dangers involved in a policy of undue curtailment.

Especially in Purnea.

Murders.

The number of murders remained at the same high level as last year, and the total reported was 223. Of those occurring in the first three-quarters of the year 25 were murders for gain, 108 were the result of intrigues and domestic quarrels, 16 were due to land disputes, 9 were cases of infanticide, and 7 were cases in

which the victims were suspected of witchcraft. Murders still occur with undesirable frequency in Ranchi where the aboriginal is liable to sudden transports of passion for trivial causes and witchcraft cases are not uncommon.

Detection.

The figures for 1921 show that murderers escape detection or apprehension in about half the number of true cases, and that convictions are only secured in about 18 per cent. The percentage of convictions to true cases in dacoities, burglaries, thefts and cattle thefts were in 1921 respectively 9, 4, 20 and 46. It is, therefore, clear that detection is not one of the strongest points of the force. The difficulties encountered by the police have already been discussed, and little improvement can be expected in the work of detection unless the people learn that it is to their interest to co-operate with the police. At the same time the training of the sub-inspector does not at present include any very highly developed instruction in this branch of his duties. A scheme for a detective training school on the lines of the Bengal detective school was introduced in 1921 but this year the Council decided that the expenditure on the school was not justifiable and refused to vote supplies, with the result that the school has been closed down.

Thefts and burglaries.

The close relationship between the economic conditions of the people, and the number of thefts and burglaries was fully explained last year. It is not surprising to find that in 1922, a year in which the economic condition of the people was better than it had been for several years before, the number of thefts and burglaries remained at a figure lower than the average. Such local increases as occurred were usually due to temporary causes or to shortage of staff. For instance, in Patna an increase in the number of burglaries occurred in the first quarter of the year, which was directly attributable to unemployment consequent on the railway strike and to shortage of police patrols.

The chaukidari force.

The early part of the year was a particularly difficult time for the village chaukidar. His position is never an easy one; if he performs his duty and assists the police in the detection of crime, his isolated position in the village gives every opportunity to the criminal to retaliate against him. An instance of such retaliation has recently occurred in Shahabad, where a chaukidar gave information which enabled a sub-inspector to search certain houses, and a few

days later was set upon by the friends of the suspects, and so shockingly beaten that he died. During the early part of last year, when non-cooperators were preaching hatred and contempt of Government, chaukidars were obstructed and intimidated almost daily, and in smoe cases were assaulted. It is therefore remarkable that the number of resignations was very small, and that the chaukidars should in most districts have continued to carry out their duties in a satisfactory manner. Numerous instances have been reported in which they arrested burglars and thieves, and they have done much useful work in reporting likelihood of breaches of the peace, in tracing bad characters and in arresting absconders and suspicious characters. A particularly good piece of work is reported from Champaran, where a chaukidar organised an attack by villagers against some dacoits who were looting a house, he was himself wounded but succeeded in seriously wounding one of the dacoits who was in consequence unable to escape and most of the persons concerned in the dacoity were subsequently arrested.

So-called "political" crime has during the year excited a large amount of discussion both inside and outside the council. There has been a tendency among the public to class as political, cases in which persons have deliberately broken the peace when picketting liquor shops or enforcing the orders of self-constituted panchayats. Such cases were common at the beginning of the year, but cannot be truly called cases of political crime. A statement is given in Appendix VIII, showing the number of cases which fall under the Criminal Law Amendment Act, and under sections 124-A and 153-A of the Indian Penal Code. It will be seen that except in nine cases under the Criminal Law Amendment Act all the prosecutions ended in conviction. The number of cases under section 124-A was unusually heavy, even in the second half of the year. The number of leaflets that were proscribed also showed little diminution in the latter half of the year—94 were proscribed in the first half and 86 in the second.

Political crime.

In many of the political cases the accused refused to recognize the authority of the courts of justice and would make no defence or appeal against their sentences. In the course of a debate in the Legislative Council on the Criminal Law Amendment Act Government promised that they would refer all cases under the Criminal Law Amendment Act

Revision of sentences in political cases.

to a Judge of the High Court for scrutiny of the sufficiency of the evidence and the propriety of the punishments inflicted. The records of all such cases were accordingly referred to the Hon'ble Mr. Justice Mullick. The total number of convictions which came under scrutiny was 301. In three cases only was the Hon'ble Judge doubtful of the sufficiency of the recorded evidence and recommended suspension of the sentence on this ground; in 85 cases he recommended a suspension, reduction or commutation of sentence. Certain other cases under the preventive sections of the Criminal Procedure Code were also scrutinized by the Hon'ble Judge, who found that the orders passed were justified by the recorded evidence, except in four unimportant cases of the Monghyr district, falling under section 107 of the Code.

Trial by jury.

The most important alteration that was made in the administration of criminal justice during the year was the extension of the system of trial by jury in the case of certain offences to the districts of Saran, Darbhanga, Shahabad, Gaya, Manbhum, Cuttack and Monghyr. The system had already been introduced in the districts of Patna, Muzaffarpur and Bhagalpur, and the chief difficulty that had been found was in securing an adequate supply of competent jurors. Reports received regarding the working of the system in 1922 comment on the same difficulty. One Judge reports " there has been difficulty in securing the requisite number of jurors. A great number of medical certificates are filed and one receives the impression that almost half the jurors of the district are invalid "; another states that jurors find the duty burdensome and frequently evade service of summons, while those who are served with summonses continually make excuses and apply for exemption. Another difficulty, which has arisen as a result of the extension of the system, is that the best assessors, of whom the number is limited, are less readily available to assist the Sessions Judge in the trial of the more heinous offences, as they are required to serve also as jurors in less important trials.

Working of juries and assessors.

Figures are not yet available to show the work of the juries or assessors in 1922. But in 1921 in the three districts in which the system was in force the number of persons tried by jury was 136 and the jury's verdict was accepted as regards 126. There were still, however, a large number of cases in which the Judge differed from the findings of assesors. In 1921, 1,355 persons were tried with the aid of assessors and in the cases

of 164 persons the Judge differed from the opinion of one, and in the cases of 268 from the opinion of both of the assessors.

A distinctive point in Indian criminal justice is the frequency of appeals. In the High Court in 1921, 198 appeals were decided, and the orders of the Lower Courts were upheld in 113, reversed in 29, and modified in 49, while a new trial was ordered in 7. In the Sessions Courts 56 per cent. of appellants were entirely unsuccessful, 27 per cent. were acquitted, and 13 per cent. obtained a reduction or alteration of sentence. The figures in Magistrate's appellate courts are almost similar. From these figures it will be seen that the proportion of entirely successful appellants is about one in four and that in nearly three cases out of every five appeals are unsuccessful.

Results of appeals.

In criminal courts of all sorts nearly 2 lakhs of witnesses were examined in 1921. Of these 70 per cent. were only required to attend the courts on one day, 21 per cent. on two days, 6½ per cent. on three days and under 3 per cent. on more than three days.

Examination of witnesses.

Owing to the increase of work in the High Court it was found that the present strength of judges was insufficient to dispose of the work, and consequently the temporary appointment of two additional judges was sanctioned towards the end of the year. In three districts in which the work was unusually heavy the temporary appointment of additional sessions judges for short periods was also sanctioned.

Temporary increase.

Civil and criminal justice attracted a certain amount of attention in the Council during the year. Various questions were asked dealing with the disposal of cases by the High Court at Patna and the Circuit Court at Orissa, and with the receipts from court-fee stamps and the cost of maintaining the courts. With regard to this latter question it is impossible to give any accurate statement as the percentage of the pay of magistrates and their clerks which should be debited to the administration of the courts cannot be satisfactorily ascertained. Mention has already been made in Chapter III of various resolutions dealing with the extension of the jury system and arbitration in civil and revenue courts, of the budget debate on the High Court, and of the passing of the Court-Fees Amendment Act and the Civil Courts Amendment Act.

The Council and civil and criminal justice.

Another resolution recommending Government to invest all second officers at subdivisional headquarters with first class powers met with little support and was withdrawn. But probably Council were chiefly interested in the scheme for the separation of executive and judicial functions. A committee consisting of officials and non-officials sat at the beginning of the year to consider this question, and their report is now under examination by Government.

Jail administration.

The subject of jail administration has this year been prominently brought before the public by a number of questions asked in the Council, and by a number of articles in the press. Most of the latter narrated facts which have subsequently been proved to be untrue or exaggerated and which have been subsequently correctly set forth in official communiqués. The subject can be most conveniently treated this year under two headings—first, the treatment of "political" prisoners, and secondly the treatment of ordinary criminals.

Treatment of "political" prisoners.

No fewer than thirty-five questions were asked in the Council dealing with "political" prisoners, and a resolution, to which reference has already been made, for the appointment of a committee to consider their grievances was debated and subsequently lost on a division. It has already been pointed out that persons who commit offences such as theft, dacoity, rioting or assault against the ordinary law professedly in furtherance of a political movement cannot be regarded as political offenders, and Government in the orders which it passed at the end of 1921 and at the beginning of the present year classed as "political" offenders only those who were convicted under the Criminal Law Amendment Act or under section 108 of the Criminal Procedure Code or of sedition or rousing class hatred. These persons were allowed to have their own food from outside, to have their own clothes and bedding, and to use mosquito nets if they provided them. They were permitted, if under trial, to have what literature they liked at their own expense, though when convicted the superintendent was required to censor the literature supplied. They were allowed one visit a week from their friends and to receive and send one letter a week. They were given lights up to 10 P.M., and they were kept as far as possible separate from other prisoners. These provisions were obviously of a liberal character. Unfortunately the conduct of many of such prisoners—which was not unoften truculent, recalcitrant, defiant and grossly subversive of all jail discipline—

showed that the original orders required modification. The original orders were intended to apply to persons of education and some social status, but the movement was joined by large numbers of persons who did not possess either the one or the other and to whom this modified form of imprisonment was by no means deterrent. Volunteers of the artisan and cultivating classes, and members of the lawless classes joined the movement, the former in order to earn the daily wage that was offered, the latter in a desire to defy the law and create general disorder. It was obviously inexpedient to encourage such persons to break the law by imposing upon them lenient conditions on which to serve their sentences. It was therefore found necessary to issue orders leaving the decision as to what prisoners should receive this modified form of punishment to the trying magistrates. Later in the year it was decided that persons convicted of offences connected with political movements should all be confined in one of the three central jails. Those on whose warrants an endorsement was made by the magistrate that they should be treated as first class misdemeanants are now confined at Hazaribagh, those sentenced to rigorous imprisonment in Bhagalpur and those sentenced to simple imprisonment in Buxar.

The statements of "political" prisoners during interviews and after release were the cause of a large number of exaggerated and sometimes untrue accounts in the newspapers of their treatment in jails. These reports were after enquiry subsequently either explained or denied by Government in communiqués or by replies to questions in Council, and few of them need be mentioned here. Allegations were, however, made in the press that the health of these prisoners was neglected and that large numbers of them had lost weight. In answer to a question in Council it was stated that enquiries had been made from the Buxar jail and it had been found that the majority of such prisoners had increased in weight, twenty-seven had remained stationary and of the thirty-seven whose weight had decreased thirty had lost less than 5 lbs. while 7 had lost between 6 and 10 lbs. It was shown in answer to another question that the health of such prisoners had been generally good and that one prisoner who had been dangerously ill had been released by Government on the recommendation of the jail authorities. The untruth of the complaints on which

Reports of jail occurrences in newspapers.

Health of "political" prisoners.

these allegations were made or questions asked is shown by the case of a certain prisoner in Buxar who while he had been in jail had been suffering, though not severely, from phthisis. While in jail he had been given a diet of milk and eggs and during the time he was in jail his weight had increased by 21 pounds. On release, however, he made a statement that appeared in the press that his weight had decreased owing to the bad treatment he had received in jail.

Alterations in jail administration consequent on report of the Jail Committee.

During the year various alterations have been made in jail administration in accordance with the recommendations of the Jail Committee, to whose report reference was made last year. In order to allow prisoners to be concentrated in central jails the district jails at Arrah, Daltonganj, Purnea and Balasore have been reduced to the status of subsidiary jails and further similar reductions are under consideration, while the Buxar central jail has been set apart for the confinement of habitual offenders. The rules governing interviews and communications with prisoners have been made more liberal, and boards of official and non-official visitors have been constituted. The provision of means of education for prisoners is receiving close attention and arrangements for giving religious and moral instruction have been introduced, while Rs. 1,000 has been expended on improving the libraries at four of the principal jails as well as at the Monghyr juvenile jail. Another alteration that has been made is that at subdivisions where a civil assistant surgeon is employed he—and not as formerly the subdivisional officer—is appointed superintendent of the sub-jail.

Education in jails.

The value of the education given at the juvenile jail may be seen from the fact that of 306 boys who were discharged during 1921, all of whom were illiterate when admitted to the jail, sixty-three were able to read and write with proficiency and solve simple sums of arithmetic,

Monghyr Juvenile Jail.

sixty-five could read and write and do addition and subtraction, eighty were able to write simple words and phrases, and ninety-eight had learnt the alphabet and counting up to one hundred. Instruction in technical subjects was also given, and 332 boys received technical training in weaving, carpentry and smithy, while ninety-eight boys, who were only imprisoned for short terms, were taught cooking, dairy farming, and gardening. Weekly

classes were also held for reading religious books, and lectures on moral and religious subjects were given by members of the staff.

General jail discipline.

The disregard for discipline shown by a number of "political" prisoners was bound to react on the general administration of the jails. An indication is to be found in the number of escapes. In each of the two preceding years the number of escapes had been only five, but in 1922 the number increased to eighteen. Escapes generally take place from subsidiary jails, where discipline is difficult to maintain, but last year half of the escapes occurred from district and central jails.

The daily average of prisoners of all classes remained at the same low figure as last year (5,838), and accounted for considerable savings in the budget expenditure under diet charges. The health of prisoners throughout the year was good, and the death-rate per mille during 1922 was only 17·1 as compared with 24·0 which was the death-rate for the whole of the province. This is the lowest death-rate that has yet been recorded in the jails of this province. The number of admissions to hospital was 5,868. An outbreak of influenza occurred in epidemic form in the Bhagalpur jail and was dealt with by the use of prophylactic vaccine.

The preponderance of short term sentences.

The percentage of prisoners undergoing short sentences still remained unduly high. In 1921 34·26 were undergoing sentences not exceeding one month, and 26·62 sentences above one month but not exceeding three months. In the case of juveniles as many as fifty-eight were sentenced to terms of imprisonment of fifteen days or under. Short term sentences can seldom be deterrent and never reformative and they are liable to be harmful, especially in the case of juvenile offenders, in familiarising the offender with prison, in destroying his self-respect and making him indifferent to further disgrace. The Indian Jail Committee in their report recommended the prohibition by legislation of sentences of imprisonment under twenty-eight days, and it is to be hoped that sentences of this description will not be imposed except when absolutely unavoidable.

Jail manufactures.

The continued small jail population has made the profitable working of the jail factories a matter of some difficulty. The principal jail factories are only two—those at Bhagalpur and Buxar. These depend

very largely on large orders from various departments of Government, and the paucity of labour has been a serious handicap. Improvements in manufacture are, however, being made. A weaving master has been recruited from England for the Buxar jail and has recommended various improvements in the working of the looms to reduce working expenses, while the system of working the Bhagalpur factory is being thoroughly overhauled with the assistance of the textile expert employed under the department of industries. The concentration of prisoners at central jails owing to the reduced number of district jails should also result in material improvement, the need for which is shown by the fact that in 1921 the profit on manufactures in the Buxar jail fell to Rs. 58,000, and there was an actual loss of Rs. 19,000 at Bhagalpur. The outturn of the factories was, however, still considerable. In 1921 Buxar supplied over fifty thousand chaukidari uniforms, over sixteen thousand police uniforms, five and a half thousand orderlies' uniforms, seven thousand warders' uniforms and fifteen thousand articles of jail clothing; while at Bhagalpur the outturn of blanketting was nearly 140,000 lbs., of *kurta* cloth, 6,345 yards and of yarn 2,905 maunds.

The Council and jail administration.

The general administration of jails, apart from the treatment of "political" prisoners, attracted little attention in Council. During the budget debates a motion to reduce the total budget demand by five lakhs was brought forward but defeated. The main argument used to support the motion was the large increase—from ten lakhs to twenty lakhs—which had taken place during the last ten years in jail expenditure. This, however, was explained as being due partly to the increased cost of rations, and of raw materials for manufactures (six lakhs), partly to an increase in the pay of establishment and the opening of the Monghyr juvenile jail (two lakhs), and partly to increased expenditure on jail hospitals and sanitation (one lakh). This explanation satisfied most of the members of the Council. A resolution was also moved and accepted by Government that jail visitors should be appointed by the Governor in Council and not as heretofore by the commissioner. In pursuance of the resolution passed by the Council in 1921, Muhammadan prisoners have been supplied with long trousers instead of shorts.

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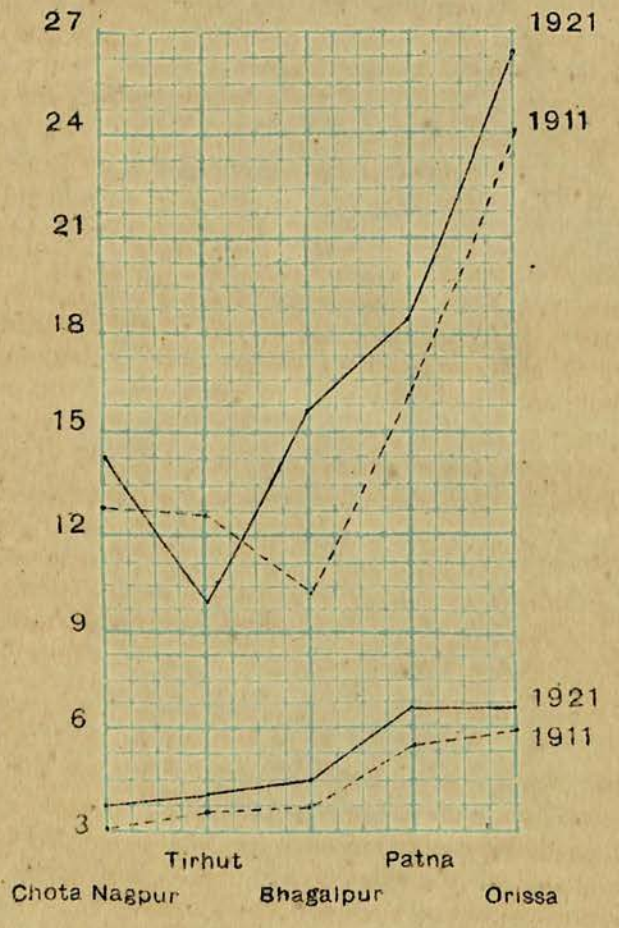
Mention has already been made of the publication of libellous allegations against Government officials by some of the local newspapers. The attitude of the Indo-English and the vernacular press was throughout the year more or less antagonistic to Government. In the early part of the year it was found necessary to demand security from a local paper, which as a result ceased publication, though after the repeal of the Press Act it reappeared with a reiteration of its original " articles of faith ". Furthermore, in order to protect its officers, it was necessary for Government, during the year, to lodge two civil and six criminal cases of libel. Two cases ended in conviction—one case against a Calcutta paper was compromised on the payment of compensation, and the remainder were withdrawn on the publication of full apologies.

Government and the press.

Diagram showing the percentage of boys at school and the percentage of literates in the five administrative divisions of the province



Top lines. Percentage of boys at school to boys of school going age

Bottom lines. Percentage of literates to population.

The complete lines show the figures for 1921-22 and the dotted lines the figures for 1911-12

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CHAPTER VI.

Government and social problems.

Apart from the maintenance of law and order and the administration of justice which are the primary social problems with which every Government is faced, possibly the most important and difficult problem that has to be faced in Bihar and Orissa is that of education. In the recent census it was found that in the whole of the province the total number of literates—that is persons able to write a letter to a friend and read the reply—was only 1,600,000 out of a total population of over thirty-four millions, and though the number of literates is 200,000 more than it was in 1911, the percentage of literates to the rest of the population is only 4·7 as compared to six per cent. which was the figure for the whole of India in 1911. This illiteracy of the masses is a factor of the very greatest importance to the province, and makes the solution of every problem infinitely more difficult. It is because the ordinary peasant is illiterate that he is so easily influenced by political agitators and so easily swayed to mob-violence; it is the same reason that makes it so difficult to persuade him to improve the sanitary conditions under which he lives, even so far as his poverty will allow, and politically it is this same illiteracy which makes it so hard to form that intelligent and interested electorate which is an essential part of the reformed constitution.

The illiteracy of the masses.

Its results.

So important is the question of primary education that it is advisable to give certain figures to illustrate the educational facilities and the extent of literacy existing in the various districts of the province, and included in Appendix V will be found a table illustrating this; while on the opposite page is a graph making a comparison between the percentage of literates and the percentage of boys attending school in the various administrative divisions of the province.

From the graph it will be seen that the percentage of boys attending school has made progress in all divisions during the last decade—except in Tirhut, where the small percentage in 1921-22 was definitely due to non-cooperation—while the percentage of literates has made a practically uniform advance. The most satisfactory point brought out by the graph is that there is a distinct relationship beween the percentage of literates in a division and the percentage of boys attending school. A high percentage in one follows on a high percentage in the other, and *vice versa*. The facts are interesting since it is not infrequently alleged that lower primary schools are of no value, and that boys forget what they have learned as soon as they have left school. But a less satisfactory feature that is brought out by the figures is the fall both in the number of primary schools and in the number of pupils attending them that has taken place since 1916-17. Thus in 1916-17 there were 23,274 primary schools for Indian boys with 646,345 pupils, while in 1921-22 the number of schools had decreased to 22,443, and the number of pupils to 629,590. At the same time there has been an increase in expenditure on primary schools—in 1916-17 the expenditure from public funds was Rs. 12,17,348, of which local funds provided a net sum of Rs. 89,590 over and above Government grants, while in 1921-22 the gross expenditure from public funds was Rs. 17,71,590, of which local bodies provided Rs. 2,95,640. The increase in the expenditure by local bodies from their own resources is encouraging and shows that they are beginning to realize the importance of primary education.

The value of lower primary schools.

The decrease in their number.

The causes of the set-back in primary education during the last five years are not difficult to ascertain. In the first place non-co-operators undoubtedly persuaded a large number of boys to leave their schools, though this movement had more effect on secondary and college education and will be dealt with later. But more important than this is the general increase in the cost of living which has affected all classes of the community. This influences primary education in two ways; first, it makes it practically impossible for teachers to conduct their schools without help from public funds, and so has led to a great decrease in the

Causes of the decrease.

number of unaided primary schools, while secondly it has made it difficult for parents to pay fees or even to spare their boys to go to school when they might be earning their living by agricultural work or at any rate saving their parents from the expense of employing labourers. An enquiry that was held in 1920-21 showed that 46 per cent. of the boys of school-going age who did not attend school were kept away by their parents on the ground that they could not afford the small fees that were charged, and 34 per cent. because they were required to earn a living. Too much reliance cannot be placed on these figures, but at any rate they show that the poverty of the average villager is a factor that very seriously militates against any increase in primary education. Other causes have also entered into operation such as the influenza epidemic of 1918-19, to which nearly three-quarter of a million deaths in the province were attributed, and indifference on the part of the parents. This latter cause, however, may be traced to the poor class of teaching, which is perhaps all that can be expected of ill-paid teachers.

Economic causes.

The question of the pay of teachers is one of the greatest importance. In 1921-22 there were in all the primary schools under the control of local bodies some thirty thousand teachers, and the average stipend of the teacher only amounted to Rs. 8-12-0 per month, while there were over 7,000 teachers who were drawing rupees three or less per mensem. These stipends are augmented by the fee income, but the average fee income of the schools amounts only to Rs. 36 a year, or a monthly rate of Rs. 3. The primary school teacher is therefore lucky if he gets an income of Rs. 10 a month, and no very high standard of teaching can be expected from him. The unattractiveness of the profession is further proved by the wastage that occurs in trained teachers. During the five years ending in 1921-22 6,441 teachers were trained in various primary training schools, but at the end of that period there were only 3,943 more trained teachers than there had been before. Even if allowance is made for casualties both among the teachers trained during the five years and among the trained teachers previously in employment, there can be no doubt that a large part of this wastage is due to the fact that trained teachers find other walks of life more attractive.

Inadequate pay of teachers.

and consequent unattractiveness of the profession.

There, therefore, appear to be two problems to be faced if an improvement is to take place in primary education. The first is to provide an adequate number of schools, and the second to provide adequate pay for the teachers. Both of these will cost money, and it is probable that local bodies will find themselves unable to increase their allotments; and in fact during the last year some District Boards have found themselves compelled to reduce expenditure under this head. It is probable therefore that the cost must fall on Government. A scheme has been worked out by the Director of Public Instruction, on reports from District Boards, for what he considers to be adequate primary education in each district and adequate pay for the staff. The scheme would take ten years to develop and would ultimately cost 23½ lakhs, or an annual increase of expenditure by 2½ lakhs. It may be impossible for Government to find this sum, but the development of primary education has obviously one of the first claims upon such funds as may be available. This can be shown, too, by comparative figures. In British India there is direct public expenditure amounting to Rs. 104 for each 1,000 inhabitants on secondary and college education, and Rs. 145 per 1,000 on primary education; in Bihar only Rs. 48-8-0 is spent on secondary and college education and Rs. 61 on primary education. It will be seen therefore that while in the case of secondary and college education Bihar spends per thousand of the population Rs. 50 less than the average of British India, she spends Rs. 84 per thousand less than the average on primary education.

Improvement of primary education a question of finance.

Primary education entitled to a share of any increased allotment for education.

The report of the educational committee appointed by Government contained a number of suggestions regarding the improvement of primary education. As this report is still under consideration it would be superfluous to refer here in detail to their recommendations, but two points of general interest are raised. The first is the question of compulsory primary education. The committee by a majority of eight to four, out of a membership of thirty-five, recommended that early steps be taken to introduce free and compulsory education for boys in all municipal and rural areas, though it should be noted that a

The problem of compulsory primary education.

number of members have only signed the main report subject to a note of dissent on this and other resolutions. The estimated cost of this reform is Rs. 100 lakhs, or more than a fifth of the present provincial income. The reasons for the small attendance at primary schools have been considered above, and it has been shown that one of the main reasons is that the parent cannot spare his son from the fields to go to school. Therefore it is certain that any measure of compulsion will be distasteful to a very large section of the people. Again if the scheme is to be introduced extra taxation, as has been shown in Chapter II, will be necessary, and the fact that, though municipalities have been empowered to make primary education compulsory and raise extra taxation for this purpose, only the Ranchi municipality has at present done so, shows that extra taxation for this purpose would extremely unpopular. The question is therefore both financial and economic, and at this stage any measure of general compulsion is outside the range of practical politics.

The inspecting agency for primary schools.

The second point is the control of the inspecting agency for primary schools. It is a common complaint that local bodies pay stipends to schools that have no existence, and instances have occurred in which sub-inspectors of schools have been criminally prosecuted for embezzling the stipends of masters in their circles who have no existence, and it is natural for the local bodies who actually pay the masters to seek control over the inspecting agency. The committee recommend that the question whether the control of sub-inspectors of schools should be transferred to District Boards should be decided in accordance with the wishes of those bodies themselves, but no final decision has as yet been made.

The problem of local managing committees.

The most effective control over primary education would be secured if the schools are managed, subject to the general supervision of Government, by people in the locality who would be able to ensure regularity of working. The difficulty, however, of establishing such a system in Bihar is again the illiteracy of the average villager. It is difficult to find people sufficiently literate to be able to control the teachers or sufficiently public spirited to devote the necessary time to doing so. Some progress is however being made in

establishing such a system, and already in Tirhut there are 376 managing committees for primary schools and in Shahabad 408. Though it is doubtful whether as yet these committees are exercising proper control, their formation is a move in the right direction and will facilitate the transfer of control over primary education to the union boards to be established under the Village Administration Act. The experiment also has been successfully tried of handing over the control of certain primary schools to the directors of Co-operative Banks, who in Darbhanga and Saran are taking great interest in this work.

The set-back in secondary education.

The set-back which has been noticed in the progress of primary education has also occurred in secondary education. Since 1916-17 there has been an increase of 79 in the number of middle and high schools, an increase from 17 lakhs to 23 lakhs in expenditure, but a decrease from 72,000 to 59,000 in the number of pupils, and the number of pupils now receiving secondary education only amounts to 1·74 per thousand of the population, compared to 5·12 per thousand which is the figure for British India. In a way this figure is not so unsatisfactory as is the similar figure for primary education, because, as Professor Rushbrook Williams has pointed out in "India in 1921-22", there is reason to believe that the structure of education has become top-heavy and that too much attention is being paid to secondary and college education. But at the same time the decline in the number of pupils combined with the increase in expenditure is disappointing. There are various causes which have led to this result. The non-co-operation movement undoubtedly dragged a lot of boys away from secondary schools, but the collapse of these schools which is referred to later should result in an increase of pupils in the Government and aided schools at the end of the year 1922-23. The revised scale of fees which was sanctioned during 1921 has probably also contributed to the decline, though as the average annual fee in a high or middle English school has only been raised by 2½ rupees, and as Government revenues now pay 36·3 per cent. of the cost of these schools as against 21·7 five years ago, it cannot be argued that the revised scale is unduly excessive. The prevalent idea that the matriculation standard is lower in the Calcutta than it is in the Patna University has also caused a migration of students to schools in Bengal.

Increased fees.

Board of Secondary Education.

During the year an important change has been introduced into the management of secondary schools. A Board of Secondary Education has been constituted, consisting of the Director of Public Instruction, three representatives from the Senate of the Patna University, three representatives of the Legislative Council, the principals of the three Intermediate Colleges and persons to represent various other communities and departments of Government. The Board has administrative powers over high schools and intermediate colleges, and has the right to initiate and be consulted upon the policy to be adopted with regard to such institutions, to inspect them and to prepare a budget of the sums which they require annually for grants-in-aid. The Board has also taken over from the Director of Public Instruction the power to recognize high schools as fit to send up candidates for the matriculation examination.

The consideration of the alterations necessary in secondary education was also taken up by the committee appointed by Government to consider primary and secondary education. The report is still under consideration, but the committee have considered two subjects of great importance.

The vernacular as the medium for instruction.

The first is the medium of instruction in high schools, which the committee has recommended should be the vernacular as soon as it is possible to make the alteration. The other point which they raise is the necessity for introducing into the curriculum subjects of vocational training. One of the reasons which was urged against Government schools by non-cooperators was their failure to provide vocational training, and there is no doubt that there is a genuine popular demand that subjects of this nature should be taught at secondary schools and that it should be one of the duties of the school course to fit boys for various trades and professions. The majority report of the committee recommends the teaching of such subjects as agriculture together with surveying, carpentry, weaving, spinning, canework, office work and commerce, and that each student should be allowed, if he so wishes, to take up as an optional subject not more than one of these vocational courses. On this point, however, the majority report was by no means unanimous, and there were a

Subjects for vocational training.

number of notes of dissent. The inclusion of vocational subjects can be urged on either educational or economic grounds. Educationally some of the subjects suggested by the committee can have little or no value—cane-work and the use of the spinning wheels may be admirable accomplishments for leisure hours, but cannot be considered a serious form of education—and if the matter was only to be looked at from an educational point of view it would probably be best to provide instruction in elementary science, since science now enters into every branch of industry. But the committee chiefly considered the proposal from an economic viewpoint, though economically there are also difficulties in the way of introducing such subjects into the curriculum. The provision of the necessary expert teachers in all the subjects would be expensive, and their training would itself be a matter of no small difficulty, while it is doubtful whether Indian industries are at present sufficiently developed to provide employment for students who would be turned out trained or partially trained in the various vocations. The facilities already provided for vocational training in secondary and arts schools were referred to last year, and no further progress has been made since, although technical instruction, to which reference has already been made in dealing with the Department of Industries, has been improved.

Their value from an educational point of view.

and economically.

The decline in the number of students in Arts Colleges which was noticed last year again continued, and the total this year was only 2,075, as compared with 2,269 last year and 2,924 in 1918-19. The expenditure however has increased, and amounts now to over seven lakhs of rupees, chiefly owing to the establishment of post-graduate classes at Patna. The expenditure on each pupil amounts to Rs. 340, and it is perhaps worth noting that the amount spent on each pupil in these colleges is approximately the same as the total expenditure on four primary schools. The reasons for the decline in numbers are chiefly the non-cooperation movement and the increase in the cost of living, though in Orissa a succession of bad harvests has also been a contributory cause. During the year the new buildings for the Ravenshaw and Greer Bhumihar Brahman Colleges

Arts Colleges.

Decline in the number of students.

New buildings.

at Cuttack and Muzaffarpur were completed and these have now moved into the new buildings. The Ravenshaw College is particularly fortunate in having secured a fine library building for which the Raja of Kanika gave a donation of Rs. 50,000. The Tej Narayan College at Bhagalpur has also moved into its new buildings which have been built at a cost of eight lakhs, of which Rs. 3,29,000 was given by the Raja Bahadur of Banaili. But these buildings are little good without pupils, and it may reasonably be hoped that with the decline of the non-cooperation movement a material increase in the number of pupils will take place in the course of the next few years. One of the few institutions in which there has been no falling off in the number of students during the year was the Patna Law College, where, though there was a decrease of three in the pleadership classes, the total numbers increased by twenty-eight. The question of acquiring a building for this college was considered by the Council, which sanctioned the acquisition of a private house for the purpose; sanction has also been accorded to the revision of the staff of the college.

Patna Law College.

During the year little progress has been made in University affairs, and owing to the decision of the Government of India to make no further contributions for the establishment of the University, progress is likely to be slow. At present an alternative proposal to locate the University in the neighbourhood of Patna College, instead of on the site beyond the new city which had originally been chosen, is under consideration. The demand for instruction in the vernacular influenced the Senate in passing a resolution that the medium of examination for the matriculation examination should be the vernacular of the candidate, and that this change should be permissive after 1923 and compulsory after 1928. The resolution has not yet been sanctioned by Government. The proposition appears simple, but in practice both it and the establishing of the vernacular as the medium for instruction in secondary schools will not be easy. The claims and needs of all classes of the people inhabiting the province with their varying and different vernaculars have to be taken into consideration. Teachers and examiners and text-books in all vernaculars will be required and the provision of these is bound to make the alteration expensive. A suggestion has consequently been made to give the proposal a

The University.

Medium of examination for matriculation.

trial on a small scale. In addition to the post-graduate classes of Patna College opened in 1919, M. A. teaching in English has been recently added to the Ravenshaw College. The latter innovation was rendered possible by a donation of half a lakh by Maharaja Sir Bir Mitrodaya Singh Deo, the Ruling Chief of the Sonpur State.

Post-graduate classes.

The education of girls in Bihar is probably beset with more difficulties than anywhere else in India. Difficulties caused by the *pardah* system and the early marriage of girls are probably stronger than elsewhere, while lack of available funds makes the solution of the conveyance problem one of increasing difficulty. Parents do not like their daughters to walk to school, especially in towns, and usually expect the necessary conveyance to be supplied free of cost, or at any rate at a very small cost, by the school authorities. Partly as a result of this necessity of providing conveyances and partly owing to the necessity of paying women teachers at a higher rate than men, the cost of educating a girl in a secondary school is practically twice as high as the cost of educating a boy, though in primary schools the cost is almost identical. The total number of Indian girls, including those in boys schools, undergoing education at the end of the year 1921-22 was just over one lakh, and represents only 4·1 per cent. of the number of girls of school-going age, compared with 27·8 per cent. in the case of boys. But during the five years ending last year, though the total number of girls being educated has decreased, this reduction has taken place in private institutions, and the number being educated in public institutions has increased, while there has been a substantial increase in the numbers of those attending secondary schools.

Female education.

Increase attendance at secondary schools.

There has also been an increase in the number of girls attending technical, industrial and agricultural schools. This increase at a time when the figures of practically all other forms of education are decreasing is satisfactory, and the increase in the number of those attending secondary schools is a hopeful sign for future progress, as it should help to solve one of the main difficulties of female education, the provision of teachers.

The non-cooperation movement has been mentioned as accounting for the decrease in the number of pupils in public institutions of various kinds. This decrease has been balanced

to a certain extent by a rise in the number of national schools. It has been found difficult to obtain accurate figures of the number of boys who attend such institutions, but the Director of Public Instruction has estimated that at the end of March the number of national schools was about 400 with seventeen thousand pupils nominally on their rolls. The schools were then, however, distinctly losing in popularity, and the attendance in most of them was extremely irregular. This decline in popularity continued throughout the year, and by the end of the year of the six recognized high schools which had been nationalized two had already applied for renewal of Government recognition. The establishment of national schools called attention to a fairly widespread desire that more attention should be paid in educational institutions to the vernacular and to vocational subjects, and as has been shown above both these points are receiving the attention of Government. It is also reported that the movement improved the quality of the work in many schools by drawing away pupils who had no interest in their studies, and this is proved by the higher percentage of passes at the matriculation examination in February 1922. But on the other hand the movement has done much harm by undermining the foundations of discipline. The attitude of the students is now often disrespectful, they show a contempt of authority and disinclination to submit to discipline, and parents are gradually losing their control over their sons, especially when the parent himself has not had the advantage of school education. The movement has also seriously damaged the education of a number of students; it tempted them to leave Government schools for national schools, but has been unable to provide the necessary funds for the maintenance of these schools, with the result that these students have suffered from a serious dislocation of their studies, the effects of which it will be difficult to eradicate.

The effect of non-co-operation.

Its effect on discipline.

Another social problem with which Government have to deal is that of excise. In this province excise provides a large share of the provincial revenue, and both inside the Council and outside the view is commonly expressed that Government encourages drink for the sake of revenue. Nothing could be further from the truth, and, though last year a full account was given of the excise policy of Government and the fallacy of this view was thoroughly exposed,

Excise.

there still appears to be much misunderstanding on the point, and it may be advisable to recapitulate some of the arguments given last year and to give a full account of the excise policy of Government.

In the first place there is a tendency to overestimate the amount of drink consumed in the province, and to imagine that as the excise revenue forms so important a part of the provincial revenues, so the amount of drink must be correspondingly large. This view however is based on a misconception—the importance of excise to the revenue is not due to the fact that the excise revenue is unduly high, and consumption unduly large, but to the regrettably small total of the remaining revenue. This may be illustrated by figures.

Consumption of liquor.

In Bihar the excise revenue per head of population amounts only to five annas ten pies, which is the lowest *per capita* revenue from excise in any province or presidency in India—rates elsewhere varying from six annas ten pies in Bengal to Rs. 2/2 in Bombay. The annual average consumption of country liquor for every hundred persons, though it is higher than in Bengal and the United Provinces, amounts only to 3·36 gallons, which is considerably lower than the average consumption in Madras, Bombay or the Central Provinces. The opportunities for drinking given in this province also are not unduly large; the number of liquor shops for every 100,000 of the population are 13 in urban areas and 4 in rural areas, compared with 14 in urban areas and 23 in rural areas in the Central Provinces, 9 in urban and 8 in rural in the United Provinces, 8 and 15 respectively in Madras, and 9 and 3 in Bengal. From these figures it will be seen that if it is true—as undoubtedly it is not—that the policy of Government is to augment revenue by encouraging drink, this policy is not meeting with much success. Less revenue is obtained per head of population than in any other province, but, even so, the average consumption per head is less than in several other provinces, and the actual number of liquor shops is smaller proportionately to the population than in any province except Bengal.

Government policy.

The policy of Government has always been, and always will be, to bring the drink traffic under strict control and to secure the maximum revenue from the minimum of consumption. It would be out of place to discuss here whether it is justifiable or advantageous to force a man by legislation to give up the habit of drinking to which he

has grown accustomed, and which he enjoys. Leaving however this much-disputed question on one side, prohibition in this province presents more than the usual complications. The first difficulty, which is common to a large part of India, and as has been pointed out by Professor Rushbrook Williams, is that "liquor can be had from almost any palm tree with no more skill than is required to cut an incision, and with no more apparatus than a knife and a toddy pot", while liquor can also be distilled from molasses and other food-grains. In the jungle tracts of Chota Nagpur there are also large numbers of mahua trees and great facilities for illicit distillation. There is another difficulty more peculiar to the province; in that a large area borders on Nepal and the Feudatory States, and as these States would not necessarily agree to a policy of prohibition, the prevention of the import of liquor from them would be almost out of the question.

In these circumstances prohibition, even if advisable, is a practical impossibility, and if this is admitted then the only alternative policy is that which Government are actually following—namely, to impose an efficient control over the price, quality, quantity, and strength of liquor sold, and to combine the maximum of revenue with the minimum of consumption. There is no doubt that excise revenue has risen from Rs. 1,04,00,579 in 1912-13 to Rs. 1,50,00,000 which is the estimated figure for 1922-23. But the figures for consumption are somewhat misleading. During the same period there has been apparently an increase from 1,157,636 gallons in 1912-13 to 1,177,840, which is the figure for the calendar year 1922, in the consumption of country spirit. The explanation is, however, that during this period it has been the policy of Government to decrease the area served by outstills, over which no control can be exercised except by the limitation of their number, and to increase the area served by liquor shops in which the price, quality, quantity, and strength of the liquor sold can be regulated. In pursuance of this policy the number of outstills has been reduced by 395, the place of which has been taken by only 138 liquor shops. As no reliable figures can be obtained from outstills, the consumption figures for the province are only the figures for liquor shops, and they will naturally be inflated by the addition

Increase of revenue combined with decrease of consumption.

Reduction in number of outstills.

of the amount consumed in these 138 shops. The average annual consumption in a liquor shop amounts to 400 gallons, so that the estimated consumption in 138 liquor shops comes to over 55,000 gallons. It may be assumed that the amount consumed in the 395 outstills which have been closed was considerably more than this, but, even if only this amount is deducted from the total consumption in 1921-22, it will be seen that there has been an actual reduction of 40,000 gallons since 1912-13 in the amount consumed in liquor shops, excluding those that have been opened to replace outstills.

Comparison of consumption and revenue in thirteen districts.

The decrease in consumption combined with an increase in revenue can be seen even better by examining the figures relating to thirteen districts in which the areas served by distilleries remained the same throughout the whole period. These are shown diagramatically on the opposite page. It will be seen that since 1912-13 consumption has dropped in these thirteen districts by nearly 30,000 gallons, while revenue has risen by over 12 lakhs of rupees, and that the steady rise in revenue and fall in consumption during the last three years is particularly marked.

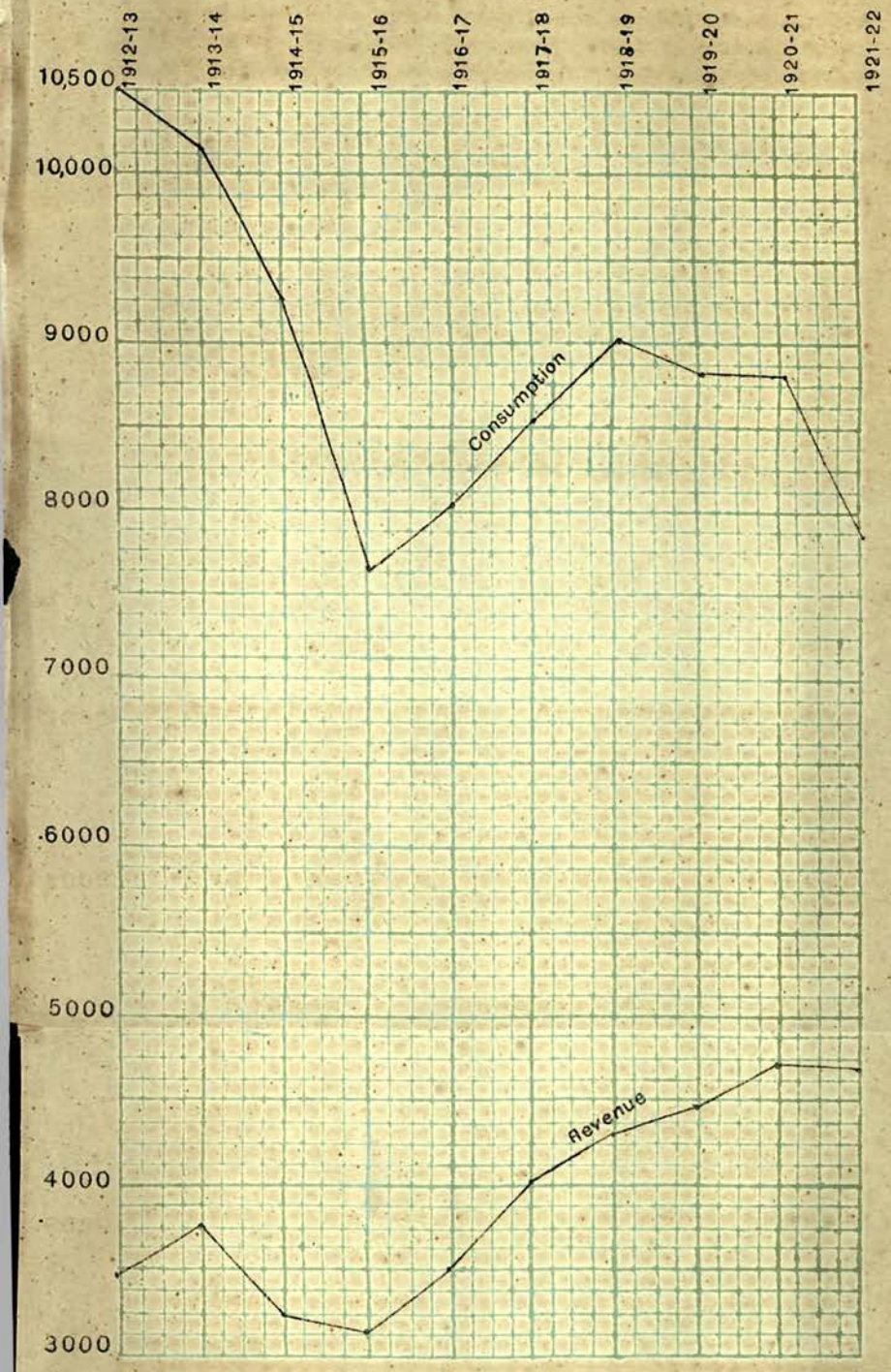
Ganja, opium and bhang.

At the same time there has also been a decrease in the consumption of ganja and opium, combined with an increase in revenue from these sources. In 1912-13, 2,500 maunds of ganja and 900 maunds of opium were consumed, and the revenue from both sources was just over 34½ lakhs. In 1921-22, 1,700 maunds of ganja and 740 maunds of opium were consumed, but the revenue rose to Rs. 64½ lakhs. The duty on both ganja and bhang was raised in April 1921, and resulted in decreased consumption in the year 1921-22 of 200 maunds of ganja and 3½ maunds of bhang, but in increased revenue of over Rs. 2 lakhs.

Settlement on the sliding scale.

The method of settling liquor shops by auction has always aroused considerable criticism—it is argued that the lessee having been forced to make a large bid to obtain settlement will naturally encourage the sale of liquor so as to ensure a profit for himself. A new system of settlement on a sliding scale is now being introduced. The outstanding feature is that the license fee

Diagram showing the consumption of country spirit and revenue obtained therefrom in the districts of Patna, Gaya, Shahabad, Saran, Darbhanga, Monghyr, Bhagalpur, Purnea, Santal Parganas, Cuttack, Balasore, Puri, & Manbhum.



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of the shop is paid on the actual consumption during the month instead of being settled by auction for the year. The fees so fixed are on a sliding scale, which leaves a sufficient margin for the vendor's profits, but the rate of profit decreases in inverse ratio to the consumption, so that the temptation to push up sales unduly is minimized. The system was introduced first in 1919 in Balasore in the case of opium in order to check the illicit trade in opium between this province and Bengal. As it was found to work satisfactorily, it has now been extended to country liquor shops, and during the year 117 shops have been settled on the sliding scale. It is still too early to say whether the experiment is a success or not, but a comparison of the figures of the last six months of this year with the corresponding figures of 1921, when the shops were settled by auction, shows that there has been a decrease of 15 per cent. in consumption while the loss in revenue has only been 2 per cent.

The "temperance movement" of the non-cooperators.

Interference with the Government excise policy under the guise of a "temperance movement" was one of the main objects on which the non-cooperation party concentrated. During 1922 however they had little direct success; their attempts to interfere with the revenue sales at the beginning of the year were by no means successful, and all settlements were satisfactorily carried through. In fact vendors showed themselves keener than usual to secure licenses, so that the excise revenue rose to a much higher figure than had been anticipated. During the first half of the year, however, non-co-operators continued their illegal efforts to prevent the sale of spirit and tari. Volunteers, who were often drawn from the very scum of the bazar, continued to picket liquor shops, and in one case actually stole a whole cartload of liquor which was being taken from a warehouse to a liquor shop. Shoots of palm trees were frequently damaged by people to prevent their owners leasing them to *pasis*. But from May or June onwards the movement collapsed; and there was little or no interference with the sale of liquor or tari. The guise of a temperance movement was largely fictitious; it was primarily a movement directed against the Government revenue, and people were exhorted not to abstain from intoxicants so much as to abstain from purchasing from Government licensees. In several cases non-cooperators propounded the theory

that anyone may freely manufacture tari or spirit. The result has been a widespread increase of illicit distillation, which has continued even after the collapse of the movement which originated it. Thus in 1920-21 there were in all the province only 735 cases of illicit distillation; in 1921-22 the number increased to 1,031, while during the last six months of 1922 there have been 1,268 cases as against 698 in the similar period of 1921. This increase is directly due to the teaching of the non-cooperators. This can be proved by an instance in the Godda subdivision, where some non-cooperators in April gave out that anyone could freely manufacture tari or spirit. As a result in the following fortnight there were 17 cases of illegal manufacture of tari and 16 cases of illicit distillation of liquor, while subsequently, when excise sub-inspectors went to detect illicit distillations, they were badly assaulted. This increase in illicit distillation, though it was the result of a movement directed against Government, gives an indication of what would be likely to happen if a policy of prohibition was forced on an unwilling people. It shows that the inclinations of many people are not towards temperance. This is also shown by the figures of the consumption of country spirit during the year. In the first five months, during which the non-cooperators were still engaged in picketting liquor shops, the average monthly consumption in the province was 91,000 gallons, while in the last seven months, when picketting had practically ceased, consumption increased to an average of 103,000 gallons. There has also been an increase in the last nine months in the consumption of ganja, and the figures for 1922 show an increase of 156 maunds over those for 1921. There has however been a decrease of 98 maunds in the consumption of bhang and of 10 maunds in the consumption of opium. The decreased consumption in the case of opium is probably due to the increase in price to Rs. 63 per seer, which was sanctioned during the year. The duty on foreign liquor was also raised during the year.

Results in increased illicit distillation.

Increased duty on opium.

The excise committee, which was appointed last year as the result of the debate on excise policy in the Council in 1921, held several meetings during the year, and has just submitted its report. A number of questions were framed dealing with such questions as total or partial prohibition, the incidence of duties

levied upon excisable articles, the best method of settlements and the working of excise advisory committees, and replies were received from a number of persons, both officials and non-officials, interested in the subject. Meanwhile in the various municipalities the usual advisory committees met, and as a result of their recommendations two outstills, three country spirit and two tari shops were abolished and the sites of two tari shops were changed. These committees also discussed various important subjects such as curtailment of the hours of sale, the prohibition of children going to excise shops, and the prohibition of the sale of country spirit and tari in municipal areas.

The work of the Excise Committee.

The question of licenses in municipal areas was also considered by the Council in the debates on the Municipal Bill, when an amendment was brought forward that the power to grant licenses for toddy and liquor shops shall be vested in the municipality. The amendment was fully discussed and several members expressed themselves in favour of local option, but the majority agreed with Government that the Municipal Bill was not the right place for inserting a provision of this kind and that the question of its advisability could only be satisfactorily discussed when considering amendments in excise policy.

The Legislative Council and local option.

CHAPTER VII.

Local Self-Government and Public Health.

The year 1922 saw very important developments in Local Self-Government. Two Acts of the very greatest importance, the Bihar and Orissa Municipal Act, and the Village Administration Act, were passed, and another Bill, the Local Self-Government Amendment Bill, was introduced, referred to a Select Committee and will be considered at the beginning of the present year. These measures have been discussed at length in the Chapter dealing with the Legislative Council, and it is only necessary here to emphasize the alteration they will make in the general administration of Local Self-Government.

New legislation.

During the year 1922, though all municipalities except two had the right of electing non-official Chairmen, some of the smaller municipalities, owing to the difficulty of finding a non-official to do the work, still had an official Chairman, while there were still in some District and in most Local Boards official Chairmen. The Municipal Act makes it impossible for an official to be elected Chairman of a municipality, but if the municipality fail to elect a Chairman, Government are given a free hand in making the appointment and may select either an official or a non-official. The Local Self-Government Bill, as amended by the Select Committee, goes further and makes it impossible under any circumstances for an official to be Chairman of a District or Local Board. The control of Government over the budget of municipalities and District Boards has been reduced, and though Government still retains power to make rules in cases in which uniformity is desirable, the local bodies have under the new legislation practically complete control over their own affairs, and Government's power of interference is restricted to cases of serious default.

Removal of official control.

The other main alteration made by these Acts is that the local bodies will become far more representative than they were

in the past. Under the Municipal Act the franchise has been extended to all tax-payers paying Re. 1-8-0 in taxes, while the Local Self-Government Bill provides for direct election to District Boards.

Increased representation.

The system of popular control and representation has been carried even further than this by the Village Administration Act, under which Union Boards can be empowered to deal with certain of the administrative duties previously performed by District Boards, such as sanitation, medical relief, primary education and the maintenance of village roads. These Union Boards are wholly elected, and as the area that they control is very small the members should continually be in touch with and influenced by the wishes of their electorates.

It is sincerely to be hoped that this increase of popular control over the working of local bodies will result in the development in the near future of a sense of responsibility and public duty among the members themselves. More especially is this necessary in municipalities, for in the resolution published by Government on the working of municipalities in 1921-22 attention is called to several defects in their working. The collection of taxation on the whole was unsatisfactory. Municipalities are expected to collect at least 95 per cent. of their annual demand, and in the years 1912-13, 1913-14 the average percentage of collections was 97·51, and 96·8 respectively, so that it cannot be said that the rate is unduly high. This year the average collections only amounted to 92·2 per cent., and as a result the arrears outstanding at the end of the year increased by 1¼ lakhs of rupees. Unsatisfactory collections inevitably react on the financial position of the municipality, and the report on the working of the Local Audit Department shows that in twelve municipalities the liabilities exceeded the assets, and that in ten municipalities Government grants for specific purposes were diverted to the payment of current expenses, while in Darbhanga, which is shown by the resolution to be the worst administered municipality in the province, the net liabilities increased to nearly Rs. 43,000 at the end of the year 1921-22.

Some defects in the working of municipalities during last year.

Poor collections.

A necessary preliminary to the successful administration of a municipality is the imposition of adequate taxation, and as any

Low incidence of taxation.

proposal for additional taxation always excites the strongest opposition it is satisfactory to find that during last year in a number of municipalities taxation was increased, and that the average incidence of taxation advanced from Re. 1-9-4 in 1920-21 to Re. 1-11-1 in 1921-22. But there are municipalities in which the incidence of taxation is still unduly low. Among municipalities at the headquarter of districts, Darbhanga, which still adheres to the personal tax, has an incidence of only Re. 1-4-9, while in Arrah which has now adopted the holding tax in place of the personal tax, the incidence was only Re. 1-7-8. Among the smaller municipalities there are eighteen in which the incidence is less than one rupee, while in two of these towns taxation does not even reach eight annas per head of population. There has however been an undoubted improvement in the income of municipalities, and the total income derived from taxation is higher than it was in the year 1920-21 by more than one lakh. It is much to be hoped that the widening of the franchise which has been introduced will not result in any reduction in assessment, and that the commissioners will realise that it is only by imposing adequate and equitable taxation that they will be able to obtain necessary money to enable them to fulfil their duty to their electorates.

Increased interest at elections.

There is one other hopeful sign for the future brought out in the resolution, and that is the increased interest that has been shown at elections, and the increased attendance in most boards by commissioners at meetings. General elections were held in thirty-two municipalities, and the attendance at the polls was satisfactory; in fact the percentage of attendance, for instance at Hajipur where over ninety per cent. of the voters recorded their votes, was in many cases extraordinarily high. Generally also the percentage of attendance at the municipal meetings was satisfactory, though it is noticeable that at Darbhanga the percentage was only thirty-seven per cent., and this lack of interest is probably one of the causes of the inefficient administration of that municipality.

The manner in which municipalities spend their income is worth mentioning. In all the municipalities of the province the total ordinary disbursements amounted to Rs. 31 lakhs; of this

2½ lakhs was spent on general administration and collection charges, 1¾ lakhs on lighting, 3 lakhs on water-supply, 1 lakh on drainage, 9½ lakhs on conservancy, 6¼ lakhs on hospitals and sanitation, ½ lakh on markets and slaughter-houses, 3 lakhs on public works, including roads, and 3 lakhs on education. The expenditure on medical and education showed an increase of about half a lakh over last year's figures. These figures show the large proportion of income that is spent on conservancy, and yet a visitor to an average municipality would probably not be very much impressed by its sanitary condition. This is due not so much to the inadequacy of the money spent, but to lack of adequate supervision. There can be no doubt that if the sanitary work was well organized, and if each member of the staff carried out his allotted duty, there would be very material improvement in the sanitary condition of every municipality. The expenditure on water-supply was chiefly confined to those municipalities that have piped water-supplies, while in other municipalities the expenditure was incurred chiefly in repairing municipal wells and cleansing and disinfecting private wells, though in a few cases new wells were also built. The importance of providing the ratepayers with an adequate and safe water-supply cannot be over-estimated, and the new Municipal Act gives very full powers for improving the condition of all sources of water-supply that are used by the public, and there should be little or no difficulty in making very material improvement in the condition of the wells from which the public draw their water.

Expenditure of municipalities.

Sanitary condition of municipalities.

Water-supply.

The income of District Boards is largely derived from provincial rates which are collected for them and credited to them by Government, and from grants by Government for education and medical expenditure, and the Boards themselves have at present few duties in connection with the collection of taxation. The chief interest in the working of the Boards is, therefore, to be found in the manner in which they expend their incomes. There are, however, two means by which District Boards augment their income which showed decreased receipts during the last year. The income derived from pounds decreased by nearly 80,000 rupees in the last two years, this decrease being

Income of District Boards.

most marked in Purnea where the income has been reduced by nearly half. The main reason given for this result is the non-co-operation movement, the local representatives of which prevented the settlement of pounds, partly in pursuance of the general policy of hampering the administration wherever possible and partly, as was undoubtedly the case in Purnea, with a view to collecting funds by the establishment of unauthorised pounds. There was also a disappointing decrease in the contributions from private individuals to dispensaries. Generally, however, there was an increase of about fifteen lakhs in the income of all the District Boards, but this increase was confined chiefly to a few Boards, and was largely discounted by the fall in the purchasing power of the rupee. In all Boards there is a demand for the development of primary education and an increase of medical relief, and if the money for this expansion is to be found, the Boards will undoubtedly have to face the problem of new taxation, and to devise means of augmenting their income. The Village Administration Act has given Union Boards powers of imposing taxation. If these powers are used the Union Boards will be able to supplement the grants they get from the District Board, for carrying out duties, that have been handed over to them, by the income they raise by taxation, and so should have more money available than the District Board had for works of public utility within their Unions.

Need for increased income.

The most interesting feature brought out in this year's report on the working of the District Boards is the increased expenditure that has been incurred on primary education and medical relief. In 1913-14 the total cess income of the District Boards was Rs. 48 lakhs, and of this only seven lakhs, or approximately 15 per cent., was spent on education and medical relief. In 1921-22 the cess income rose to 70 lakhs, of which 22 lakhs or 31 per cent. was spent on those two objects, while three districts Purnea, Balasore, and Shahabad, actually spent over 50 per cent. Since last year there has been among all the District Boards an increase of nearly two lakhs on educational, and over two lakhs on medical, expenditure. The increased expenditure on these two objects leaves less money available for the improvement and maintenance of roads, and

Increased expenditure by District Boards on education and medical relief.

though it is possible that in the past Boards devoted too large a portion of their income to communications, there is a distinct risk that in their zeal for education and medical relief they may neglect this very important side of their duties. The amount spent by District Boards on communications has increased from only 13 to 15 lakhs during the last ten years, in spite of the heavily increased cost of materials, which shows that this risk is a real one.

Decreased expenditure on communications.

Good communications are essential to the prosperity of a district, and are of the utmost value to the individual cess payer. It is essential for the villager to be able to convey his goods to market, and the construction of a small culvert may often make all the difference in his ability to do so, while the provision of a good road will enable him to get better and faster work out of his carts. The maintenance and improvement of village and feeder roads is therefore a matter to which all District Boards might well give the closest attention. It is generally only possible to make fair weather roads, but the expenditure of a small sum in repairs very often opens a road which is entirely useless owing to a small but easily repairable breach. A good deal of the existing unwillingness to spend money on roads, is due to the idea that a number of roads are kept up purely for fast traffic, and are of no practical value to the individual cess payers. This idea was the cause of enquiries that were made in the Council during 1921 as to the number of cases that had been brought by District Boards against carters for taking their carts along the raised portions of the road. The question is one of some difficulty. On the one hand, the carter naturally feels aggrieved that he is not allowed on a portion of the road for which as a cess payer he has paid, while on the other, heavy laden bullock carts very rapidly destroy the metalled portions of the road especially in the dry weather. The solution of the question is to be found in the maintenance of good "liks" or "side tracks"; if these are in good repair, and fit for use there is little objection to making the carters use them. But in the rains cart liks seldom are in good repair and fit for use, and therefore Government have advised District Boards to modify their by-laws by allowing carts to drive on the metalled portions of the road during the rains, and also to take special measures to keep the cart liks in good order.

Cart "liks."

The nearest approach to the new Union Boards which will be formed under the Village Administration Act are Union Committees which have been constituted in some of the smaller towns, and their working during the year conveys a somewhat pessimistic view of the future of village administration. There was a general unwillingness to impose extra taxation and during 1921-22 the total income from taxation of the various boards showed an increase of only Rs. 1,000 over the income of the previous year, while the committees were in several cases merely agencies for spending District Board money. In two Unions lighting schemes were adopted; these schemes are popular with the residents, and the residents should themselves pay for them, but in both cases funds were provided by the District Board. There is little doubt that at present Union Committees are unpopular; people do not like having to pay extra taxation for such sanitation as they provide. With a view to increase their popularity Government decided to introduce the elective system as far as possible, and each committee is being reconstituted on an elective basis on the expiry of the appointment of the present members. The success of this experiment will depend on whether the elected members are prepared to raise the necessary taxation; unless this is done the committees must remain unpopular as, if their income is small they can embark on few schemes of public utility, and the public generally will see little or no return for their money. It is difficult anyhow to make the public realise the value of sanitation, though the example of the Jharia Board of Health, which is discussed later, shows that it is possible to show some actual and obvious return for the money expended.

Union Committees.

The main problems with which local bodies have to deal are those of medical relief and education, and with regard to both their duties are closely connected with those of Government. It is therefore necessary to consider the activities of Government and those of local bodies together. The difficulties and problems confronting the present system of education have been discussed in the previous chapter, and it now remains to consider how far Government and local bodies are attempting to improve public health, and give that amount of medical relief which the public are beginning to realise is one of the most important duties with which local bodies have to deal.

Education and Medical Relief.

Diagram showing the average number of daily patients in State and Public Fund Dispensaries in the province

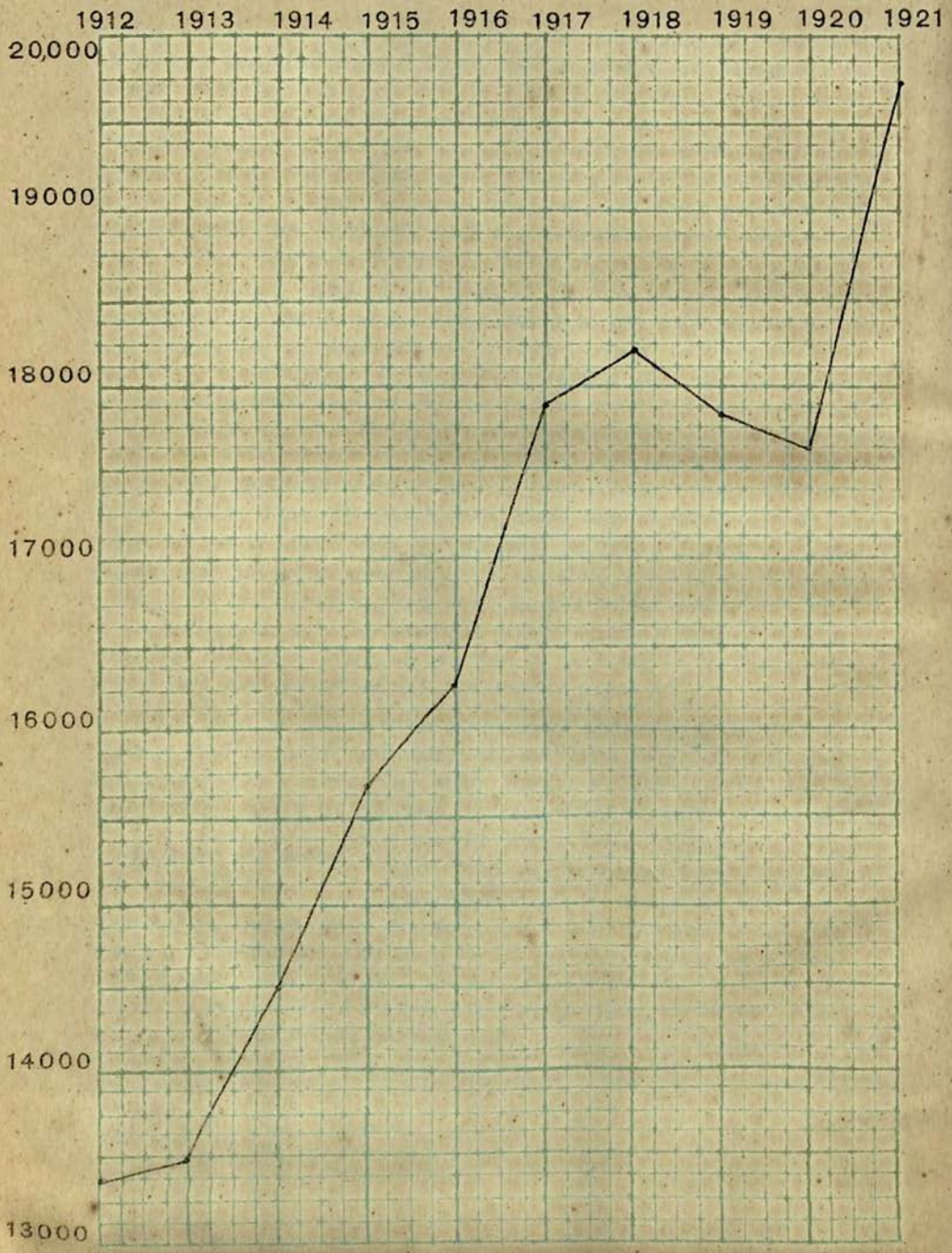
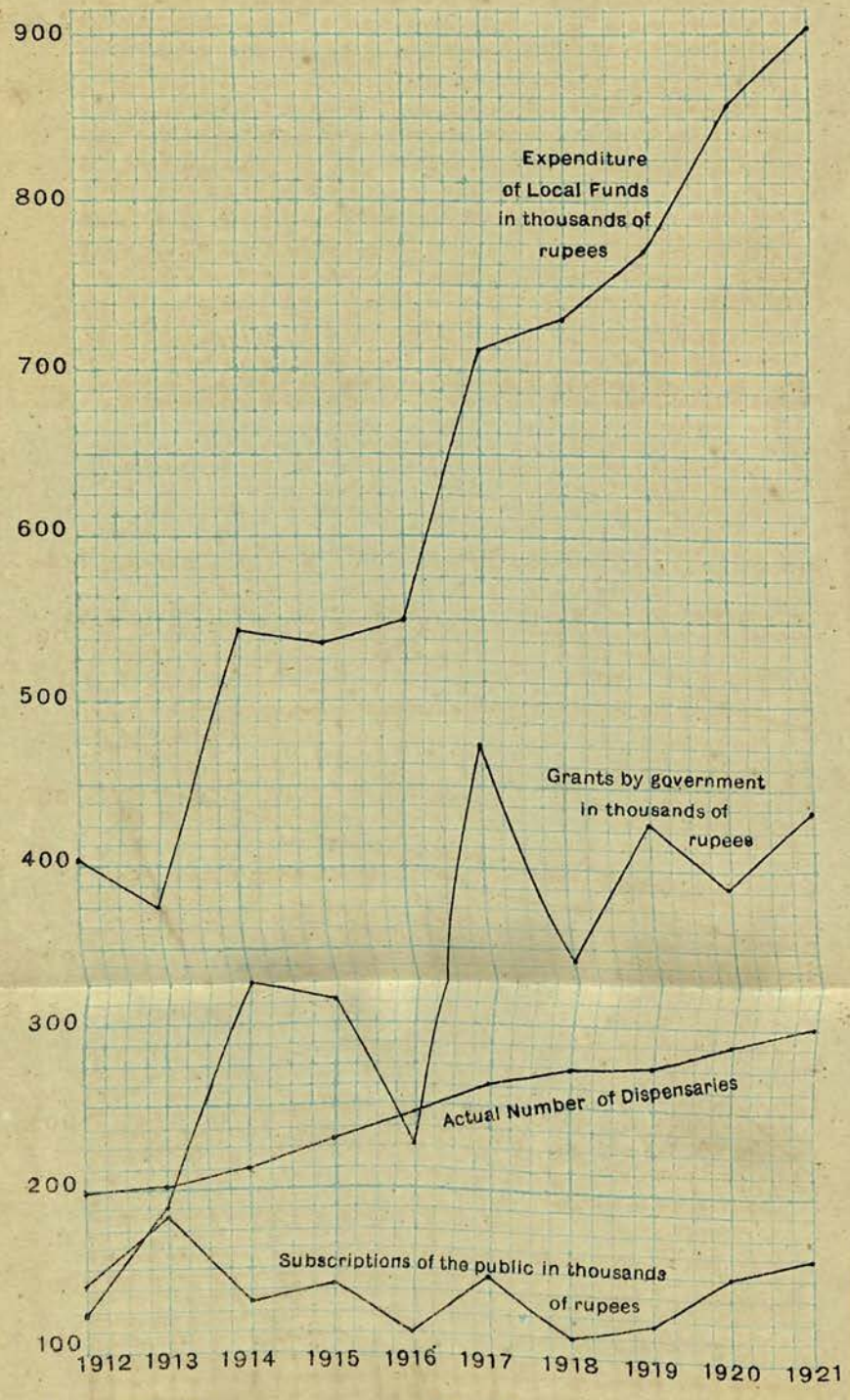


Diagram showing the actual number of State and public fund dispensaries open during the last ten years and the amount contributed to their upkeep by Government, local funds and public Subscriptions



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In 1921 the Council passed a resolution recommending that Government should take immediate steps to see that at least one dispensary was opened within the jurisdiction of every police station. District Boards hardly needed the stimulus of this resolution, as there has been for some years steady progress in the number of dispensaries maintained. During the year 1922 there was a net increase of 20 hospitals and dispensaries, of which 13 were opened by District Boards, and there are now in the province 454 hospitals and dispensaries of all sorts, of which 308 are either directly supported by Government or by local funds, 21 are partially aided by Government, and 125 are managed by private individuals or railways. The average daily number of patients treated as indoor or outdoor patients in all Government and local fund hospitals and dispensaries was over 19 thousand a day, and the total number of patients treated throughout the year was practically 3 million, while a further million patients were treated in private dispensaries. The total expenditure on Government and local fund hospitals and dispensaries amounted to over Rs. 16 lakhs, of which local funds contributed over 9 lakhs, Government 4¼ lakhs, private subscriptions 1½ lakhs, and miscellaneous receipts 1 lakh.

Increased number of dispensaries.

The graphs on the opposite page show the steady growth in the number of dispensaries, in the average number of daily patients, and in the expenditure of Government and local funds that has taken place since 1912. It will be seen that the number of public dispensaries has risen steadily from just under 200 to over 300. The average daily number of patients has also risen steadily, except during the years 1919 and 1920, from 13,400 to 19,600, giving an average daily treatment at each dispensary of 65 persons in both years. As the number of daily patients increases in corresponding proportion to the number of dispensaries it is clear that at present the supply of dispensaries has not outrun the demand, while it also appears that an average daily attendance of 65 persons is the limit which can be expected under the present system of management of dispensaries and hospitals. It is therefore necessary if medical relief is to be brought to a larger number of persons that both the number of dispensaries should be increased and the range of their duties enlarged.

The need for further increase.

The ideal scheme which it is hoped to be able gradually to carry through is to have a dispensary at first in each thana, and ultimately for each 100 square miles. The medical officer of the dispensary would be entirely responsible for the public health of his area; he would be assisted by a compounder so that it would be possible for one or other to be away from the dispensary investigating outbreaks of epidemic disease and taking immediate preventive action. The ideal is to have a medical officer, who can at once reach the spot where epidemic disease has broken out and deal with it in its earlier stages, when it is still possible to take effective action. Some District Boards are already experimenting on these lines in consultation with their Civil Surgeons. In Purnea dispensary doctors have received instructions to look after the sanitation of villages within five miles of their dispensaries. In Darbhanga they have been instructed to supervise outbreaks of epidemics, to distribute medicines in the villages, to have wells disinfected, and to give instructions on matter of public health in *hats* in villages within a radius of five miles of their dispensaries. Similar schemes are being started experimentally in Shahabad and Saran.

Dispensaries and the prevention of epidemics.

There are however two main difficulties in giving full effect to this scheme, the first is financial, and the second the lack of trained doctors of the Sub-Assistant Surgeon class. As has been shown above, District Boards are spending a large and increasing part of their income on medical relief, and in the case of a number of the poorer Boards, they have now come to the end of their resources. In some cases indeed local bodies are not even able to provide the necessary money with which to meet the increased expenditure, and many dispensaries and hospitals are being supplied with funds barely sufficient for purchasing the necessary diet and medicines. The graph shows that receipts from private subscriptions have shown little variation, and that even with the increased number of dispensaries there has been no corresponding increase in the amount thus realised. It is therefore unlikely that more than a small increase of income will be obtained from this head, though it is possible that if District Boards and municipalities set about the collection of donations rather than small monthly

Financial difficulties.

Small extent of private subscriptions.

subscriptions and, when opening a new dispensary, made efforts to establish by means of donations an endowment fund, a fair sum might be collected the interest on which would be of material help in meeting current expenses.

In order to encourage an expansion in the number of dispensaries Government has met an increasing share of the expenditure. During the last two years they have provided 5 lakhs to be distributed among various District Boards for opening new dispensaries, but as they were unable to promise any recurring grants to meet the cost of upkeep, a large proportion of this money had to be given to those District Boards which were able to meet this from their own finances, and naturally these Boards were mostly the richest. It is however in those districts in which the Boards are poor that expansion is chiefly needed, and from next year Government hope to be able to give recurring grants and so help in the establishment of dispensaries in these areas.

Increased grants by Government.

The lack of Sub-Assistant Surgeons is due to causes both of which Government are attempting to remedy, the first being the insufficiency of the pay offered which was failing to attract men. A fresh rate of pay has recently been sanctioned which should result in inducing more men to take up this profession. The second difficulty is the lack of facilities for medical education; there are at present in the province two medical schools, the Temple Medical School at Patna and the Orissa Medical School at Cuttack, but it is not possible for these two schools to turn out the number of Sub-Assistant Surgeons which is necessary, even for the present needs of the province, and, if in the future a public health organization is established, there will be need for a still larger number. At present applications for admission to the schools are far in excess of the accommodation, and it is therefore hoped that ultimately it will be possible to provide more such institutions. Muzaffarpur and Gaya have been suggested as suitable sites, but no definite decision has yet been arrived at. Reference has already been made to the lack of a medical college, for which there is a real demand. At present medical students from this province have to go to the Calcutta Medical College,

Lack of Sub-Assistant Surgeons.

Lack of facilities for medical education.

where 18 places only are reserved for them though the average number of applicants during the last seven years was 57. The present scheme is to convert the Temple Medical School into a college. New hostels and laboratories have already been constructed for this school, and considerable improvements have been made in the Patna General Hospital which provides the necessary clinical material. When these new buildings have been fully equipped, and when residences have been provided for the staff, it will be possible to convert the school into a college, but to do so before establishing another medical school would lead to a reduction in the number of students trained as Sub-Assistant Surgeons. It has therefore been recognized that a new medical school must first be opened, and this scheme has been rendered practicable by the donations made to the Prince of Wales Medical College Fund, which amount to 8½ lakhs, and by the further generous donation of 5 lakhs which has been given by the Maharajadhiraja of Darbhanga. As a result of these donations the scheme is beginning to make progress, and the foundation-stone of the school at Darbhanga was laid early in the present year by His Excellency the Governor.

General public health organization.

The severe epidemic of cholera that occurred in south Bihar in July and August 1921 called attention to the insufficiency of the agency at the disposal of local bodies or Government for dealing with epidemics. In the latter part of the year a conference was called of representatives of District Boards and municipalities, which appointed a committee to formulate proposals for a general public health organization. A comprehensive scheme has been prepared and has been generally approved by the various local bodies, who however, almost unanimously plead their inability to carry it out owing to poverty. The main features are first, the amalgamation of the medical and sanitary staff, including vaccinators, into one organization controlled by the District Boards but subject to the general authority of a Central Board of Health; secondly, free compulsory vaccination; thirdly, the combination of general sanitary and epidemic duties with strictly medical work; and fourthly, the appointment of District Health Officers. The cost of the scheme is about 3 lakhs, which cannot be regarded as a very high premium for insurance against epidemics. Meanwhile, however, some progress has been made. During the cholera

season in each district a small reserve of vaccinators has been employed to take simple preventive measures such as the disinfection of water-supply and the distribution of simple medicine. A special epidemic cadre of five Assistant Surgeons has been employed throughout the year, and during the cholera season was temporarily increased to ten. These Assistant Surgeons are sent to districts in which there has been an outbreak of epidemic disease, and with the assistance of the vaccinators are of great use in supplementing the work of the District Boards. Arrangements have also been made to give elementary training in preventive measures to Kavirajes drawn from the various villages, and though it is too early yet to judge of the results of this experiment, it appears that some of them at least have learnt that cholera is a preventible disease. Attempts have been made to secure prompter reports of the outbreak of epidemics so that early preventive measures can be taken. District Boards also are realizing the importance of prevention, and the examples above given of Darbhanga and Purnea show that an attempt is being made to utilise the present dispensary staff as an epidemic preventive staff.

Epidemic reserves.

Elementary training of Kavirajes in sanitation.

A resolution in the Council for the early provision of dais in urban and rural dispensaries calls attention to the very high rate of infantile mortality that prevails. Statistics which have been collected for the last four years show that 19 children out of every hundred, compared to 3 out of every hundred in England, or very nearly 1 in 5, died before completing a year of life, and that the total number of deaths from the three chief epidemics—cholera, small-pox, and plague—was three hundred thousand less than the number of deaths of infants. There is therefore a very urgent necessity for increasing the number of trained lady doctors, midwives, and dais. A maternity supervisor has been recently appointed at Patna, and it is to be hoped that other large towns will find funds for similar appointments. The new Municipal Act gives municipalities power to control the sale of milk, and if some of the more advanced municipalities take advantage of this power, an appreciable decrease in their infantile mortality, as well as a general improvement in health, should follow.

High rate of infantile mortality.

In his report for the year 1921 the Director of Public Health called attention to the close relationship that exists between public health and agriculture. There can be no doubt that the relationship between the economic condition of the people, the prevalence of epidemic diseases and the birth-rate and mortality amongst the population, is intimate and definite and each varies with the other. Agriculture is the great national industry, and when a good harvest is obtained the economic condition of the people automatically improves. It has been shown above that both 1921 and 1922 were years of exceptionally good harvests, and therefore, the province should be found to have had an exceptionally clean bill of health in 1922. And so in fact it had. There was a remarkable freedom from epidemic diseases and the number of deaths from all causes only numbered just over 800,000, which is over 300,000 fewer than in 1921. This gives a death-rate of 24·07 per thousand, which is the lowest death-rate on record for many years, and compares very favourably with 35·3—the average death-rate for the last ten years. The number of births totalled 1,186,380, or some 7,000 less than last year.

Relationship between public health and economic conditions.

Low death-rate in 1922.

Of the total number of deaths fever accounted for 576,118, or more than two-thirds. This is partly due to the reporting agency; the chaukidar classes as fever any disease to which he can give no other name, but even admitting this, there is no doubt that fever accounts for more deaths than any other disease. The chart on the opposite page shows the death-rate per thousand for the last three years and for the average of the last ten years up to 1921. It will be seen that there is a rise in the death-rate in March, April, May and also in the average rate at the end of the year. The rise in March, April, and May is probably not due to malaria, and investigations are being carried out to try and trace its cause, as it is possible that this fever is the relapsing fever which has occurred epidemically during the last five years in the United Provinces and the Punjab. The normal rise at the end of the year, which however has not occurred during the last two years, is undoubtedly due to malaria. Methods of preventing this disease are being

Fever.

Relapsing fever.

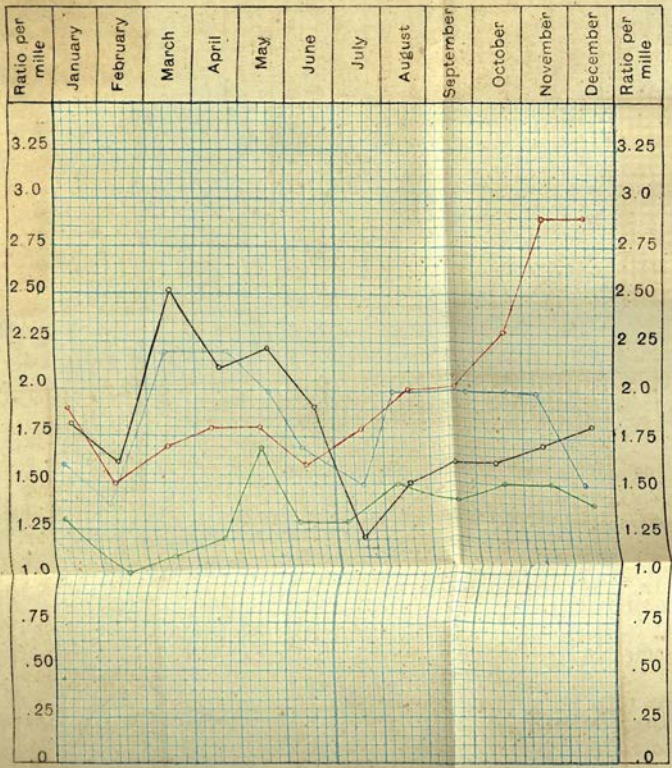
Provincial Fevers Chart

Red line= Average death rate 10 Years

Black, = 1920

Blue, = 1921

Green, = 1922



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investigated, and arrangements are being made for carrying out a special investigation in the iron-ore and forest areas of Singhbhum, where the prevalence of malarial and black water fever threatens to hamper the development of the mines. A scheme of malarial prevention however must be carried out on a large scale, and must very largely pay its own way; it should therefore be combined with agricultural improvement; marshes and wet lands must be drained or flooded in a scientific manner so as to reduce the breeding of mosquitoes and at the same time produce better crops, and it is only if investigation can show the manner in which this can be effectively accomplished that much progress can be expected. Meanwhile as much as possible is being done to cure those attacked. The amount of quinine sold through postmasters and other agencies increased from 600 to 660 pounds; while over 4,000 persons suffering from malaria were treated as indoor patients, and over 800,000 as outdoor patients in the various dispensaries.

Prevention of malaria.

There was no serious outbreak of cholera during the year and the death-rate fell from 2·6 in the previous year to ·8 per thousand, the total number of deaths being only just over twenty-eight thousand. Investigation into the causes of cholera however still continues, and two Assistant Surgeons were employed towards the close of the year in the Cuttack district to ascertain the causes of cholera especially in those areas in which it has become endemic and to train the villagers themselves in preventive measures.

Cholera.

Small-pox only accounted for 2,300 deaths this year compared with 7,700 last year and 23,000 the year before. This reduction is however attributable rather to satisfactory climatic conditions and good luck than to any preventive measures. The number of vaccinations performed has been steadily decreasing, and fell from 1,060,485 in 1920-21 to 938,851 in 1921-22. This decrease was partly attributable to political agitators, but there was also very great unwillingness among the people themselves to permit the vaccination of their children. This decrease, if it continues or is even maintained, is likely to have serious results and will increase the probability of the province being visited by a serious epidemic of small-pox. The present system of licensed

Small-pox.

Decrease in number of vaccinations.

vaccinators has not been found to give satisfactory results, and the proposed new public health organization should provide a more effective scheme. In connection with its establishment Government are considering the extension of the Vaccination Act to wider areas. But again extension of vaccination can be achieved more by educating the people to realise the value of vaccination, than by the enforcement of any Act, as even in municipal areas where the Act has been in force for many years the death-rate from small-pox is as high as it is in rural areas, which shows that the enforcement of the Act is not being effectively carried out.

Plague.

The mortality from plague was practically the same as in 1921, though there were signs at the end of the year in some districts of what might develop into a somewhat serious outbreak. This disease is one which requires prompt preventive measures; the value of the evacuation of houses is now generally realized, and arrangements have been made to place at the disposal of Local Boards in selected subdivisions, where plague breaks out every year, funds for carrying out *anti*-plague measures in a regular and systematic way, the chief measures being disinfection, evacuation and propaganda work, and the distribution of doles to the poorer classes who cannot meet the expenses of evacuation.

Gaya intensive sanitation scheme.

From these brief summaries of the incidence of the chief diseases in the province during last year it will be seen that the prevention of disease depends very largely on the preventive action taken by local bodies. It is therefore unsatisfactory to find that municipalities generally were not prepared to pay for the maintenance of health officers, and that few of the twelve towns which had previously been provided with health officers retained their services during 1922. The Gaya intensive sanitation scheme, to which Government contribute half the cost, is also tending to become more and more an organization for medical relief and less and less a sanitation scheme. The medical side of the work is appreciated; but on the other side little is achieved, as the Sub-Assistant Surgeons in charge of the dispensaries prefer medical practice to the more unpleasant duties associated with the prevention of epidemic disease. The advantages of an intensive public health scheme cannot be better illustrated than by the excellent work which is done by the Jharia Mines Board of Health.

In 1921 the area controlled by the Board was extended by the Local Government to include the whole of the Dhanbad sub-division, which is one of the most thickly-populated areas in the province. The value of sanitation in such an area cannot be overestimated, and this is realized by the inhabitants themselves, so that the Board is now able to obtain by the levy of cess an income of Rs. 2½ lakhs without popular opposition. The Board has therefore plenty of money with which to develop its schemes, and in this it has an advantage over most local bodies. The Board is however an example to local bodies in this that it shows that though the improvement of health costs money, any money spent on it is a profitable investment the value of which can be realized by the assessees. Its report for 1921-22 shows that the apathy and hostility which they used to meet with from the public has now disappeared, and that they receive constant applications for assistance in the matter of sanitation, water-supply and food control. Again this year the Board checked all outbreaks of cholera, performed through its vaccinators over 12 thousand vaccinations, and carried on further investigations into malaria and hookworm. Though the treatment for this latter disease is still unpopular, as it involves absence from work and abstinence from alcohol, 500 cases were treated. Food control was rigorously carried out, and the adulteration of mustard oil by kusum oil has been almost entirely checked.

Jharia Mines Board of Health.

The medical and public health organization which has been dealt with above confines its attention to the more common and prevalent diseases and epidemics for which ordinary treatment is required. But besides this considerable progress has been made during the year in the provision of more specialized treatment for the less common physical and mental diseases. There are now 7 leper asylums in the province with very nearly 2,000 inmates; of these the Purulia asylum, the largest in India, contains over 600 patients, while a scheme has been sanctioned during the year for the establishment of a leper colony in the Santal Parganas under the management of a missionary society. Government have acquired the land and are assisting in the construction of buildings. Recent medical researches have discovered a means by which it is possible to cure leprosy, especially if treatment is begun when the disease is in

Leprosy.

its early stages, and therefore there is good reason to hope that in the near future leper asylums may be transformed into hospitals for treatment instead of serving merely to isolate unfortunate sufferers.

A most important innovation, which is the first of its kind in India, is the establishment of a radium institute at Ranchi. The buildings for the institute will not be ready till March 1923, but meanwhile work has been started in a rented house. Treatment for cancer and other allied diseases has been provided for nearly a hundred patients coming from every part of India and some remarkable cures have been achieved. The Superintendent of the institute in a note—a copy of which is printed in appendix VI—explains the value of the work accomplished, and points out the advantages of having one centralised stock of radium for the whole of northern India. He therefore suggests that the quantity of radium should be largely increased, so that the institute may be in a position to send out treatments to all provinces as is done by the central institute in England and other countries. Though the development of the work on these lines is obviously desirable, it is not a scheme on which the Local Government can justifiably spend provincial funds, as the purchase of two or three grammes of radium would alone cost several lakhs, but it is a scheme in which all local Governments might co-operate under the direction of the Central Government.

Radium institute at Ranchi.

There are still only two mental hospitals in the province, one for Indians at Patna and the other for Europeans near Ranchi. The latter which is meant for European patients from the provinces of northern India was transferred in 1922 to a specially constituted Board of Trustees, so that the provinces which contribute to its upkeep may have a voice in its administration. Good progress is being made with the construction of a new mental hospital for Indians close to the European hospital, and as soon as it is finished the one at Patna will be closed. The abandonment of the old term "lunatic asylum" and the substitution for it of the term "mental hospital" is significant as a recognition of the fact that lunacy is in many cases a disease capable of being cured, and that it is not sufficient merely to shut up persons suffering from it in an asylum to prevent them doing harm to themselves or others. In the Ranchi mental

Mental hospitals.

hospital new methods of treatment are being applied with conspicuous success, and the percentage of patients cured to the daily average strength of patients has risen from 19·55 in 1920 to 25·57 in 1921. The percentage in the Indian mental hospital is at present not so satisfactory, but with a view to introducing improved methods of treatment and providing a qualified staff for the Ranchi Indian mental hospital, when opened, an Assistant Surgeon has been deputed to England for training in pysycho-analysis.

The various medical institutions and treatments that have so far been discussed in this chapter relate to the Western school of medicine. During the year a resolution was brought forward in the Council recommending the affiliation of the Ayurvedic system of medicine to the Western, while Government have also sanctioned the establishment during the year of three Kaviraji dispensaries by various local bodies. The difficulty of reintroducing the Kaviraji and Unani system in any degree is to get qualified men to carry on the treatment under these systems on a scientific basis, resting on a sufficient knowledge of anatomy and physiology. In order to begin meeting this difficulty Government allowed two Kabiraji students to attend the medical school lectures on those subjects, but the students unfortunately absented themselves. In the debate on the resolution, which was subsequently withdrawn, Government further pointed out that experiments are being made with indigenous drugs in order to try to find whether any of them could with advantage be introduced into the Western pharmacopœa.

Ayurvedic system of medicine.

APPENDIX I.

SOURCES AVAILABLE TO THE PUBLIC.

Chapter I.—Political and General.

India in 1921-22 by Professor Rushbrook Williams.

Chapter II.—Finance.

Chapter III.—The Legislative Council.

Proceedings of the Bihar and Orissa Legislative Council, Volumes 4, 5 and 6.

Chapter IV.—Government and Economic Problems.

Annual Report on the Land Revenue Administration of Bihar and Orissa.
Annual Report on Survey and Settlement Operations.
Annual Report on the working of the Co-operative Societies.
Annual Report of the Agricultural Department.
Annual Report of the Civil Veterinary Department.
Annual Progress Report on the Forest Administration of Bihar and Orissa
Annual Report on the Department of Industries.
Season and Crop Report.
Report of the Inspector of Factories for 1921.
Mineral Resources of Bihar and Orissa by L. Leigh Fermor.
Orissa and Chota Nagpur by B. A. Collins.
Annual Report on the Maritime Trade of Bihar and Orissa.
Annual Report on the Trans-frontier Trade of Bihar and Orissa with Nepal.
Annual Report of the Chief Inspector of Mines in India.
Revenue Report of the Government of Bihar and Orissa in the Public Works Department (Irrigation Branch).
Report on Wards, Encumbered, Trust and Attached Estates.
Annual Administration Reports for Roads, Buildings, Irrigation and Railways.

Chapter V.—Government and the Public Peace.

Annual Report on the Administration of the police in Bihar and Orissa.
Annual Administration Report on the Jails of Bihar and Orissa.

Chapter VI.—Government and Social Problems.

The Second Quinquennial Review on the Progress of Education in Bihar and Orissa.

Annual Administration Report of the Excise Department in Bihar and Orissa.

Chapter VII.—Local Self-Government and Public Health.

The annual resolutions of the Government of Bihar and Orissa on the working of the municipalities, and on the working of the District Boards in Bihar and Orissa.

Annual Returns of Hospitals and Dispensaries.

Annual Returns of the Hospitals for Mental Diseases.

Annual Report of the Medical Schools.

Annual Statistical Returns and Short Notes on Vaccination in Bihar in 1921-22.

Annual Public Health Report.

Other Reports published by the authority of the Government of Bihar and Orissa which have not been utilized as a source of information in the present volume.

Report on the Annual Statistics of the Stamp Department.

General Review of the work done by the Board of Health.

Annual Report on the Administration of Income-Tax.

Annual Report on the Administration of the Salt Department.

Annual Report on the trade carried by Rail and River in Bihar and Orissa.

Statistical Returns with a brief note of the Registration Department.

Annual Progress Report of the Archæological Survey of India. Central Circle.

APPENDIX II.

A.—Members of the Bihar and Orissa Executive Council.

His Excellency Sir Henry Wheeler, K.C.S.I., K.C.I.E., I.C.S.
The Hon'ble Mr. Hugh McPherson, C.S.I., I.C.S.
The Hon'ble Mr. Sachchidananda Sinha.

B.—Ministers.

Ministry of Education, The Hon'ble Khan Bahadur Saiyid Muhammad Fakhr-ud-din.
Ministry of Local Self-Government, The Hon'ble Mr. Madhusudan Das, C.I.E. *

C.—List of Members of the Bihar and Orissa Legislative Council.

The Hon'ble Khan Bahadur Khwaja Muhammad Nur—*President.*
Mr. John Alfred Saunders, I.C.S.—*Secretary.*
Mr. John Augustus Samuel, Bar-at-Law.—*Asst. of the Secretary.*

COUNCILLORS.

EX-OFFICIO.

The Hon'ble Mr. Hugh McPherson, C.S.I., I.C.S.
The Hon'ble Mr. Sachchidananda Sinha, Barrister-at-Law.

NOMINATED.

Officials.

1. Mr. Leonard Frederick Morshead, I.C.S.
2. Mr. Victor Herbert Jackson.
3. Mr. Birendra Chandra Sen, I.C.S.
4. Mr. George Rainy, C.S.I., C.I.E., I.C.S.
5. Mr. Maurice Garnier Hallett, I.C.S.
6. Mr. Harry Llewelyn Lyons Allanson, I.C.S.
7. Mr. John Rutherford Dain, I.C.S.
8. Mr. John Alfred Saunders, I.C.S.
9. Mr. Clare Bentley Meller.
10. Rai Bahadur Bishun Svarup.
11. Mr. Evelyn Lloyd Tanner, I.C.S.
12. Mr. Bernard Abdy Collins, I.C.S.
13. Colonel Herbert Austen-Smith, C.I.E.
14. Mr. Walter Swain, C.I.E.
15. Mr. James Augustine Sweeney, I.C.S. †

* Resigned his appointment as Minister on 9th March, 1923.
†For the period during which the Bihar Tenancy (Amendment) Bill may be under consideration by the Council.

NOMINATED—*concluded.*

Non-officials.

Khan Bahadur Nawabzada Saiyid Ashraf-ud-din Ahmad.
Babu Raghunandan Prashad Singh.

REPRESENTATIVES OF CLASSES AND COMMUNITIES.

Mr. Dhan Masih Panna	Aborigines.
Rev. Dr. Kenneth William Stewart Kennedy.	
Reverend Emanuel Sukh	Depressed classes.
Babu Biswanath Kar	
Mr. Dhanjishah Meherjibhai Madan	Industrial interests other than planting and mining.
Rai Bahadur Purnendu Narayan Sinha. ...	The domiciled Bengali Community.
Mr. Francis Ernest Lopes Morrison	The Anglo-Indian Community.
Reverend Prittam Luther Singh ...	The Indian Christian Community.
Mr. Baij Nath	The labouring classes.

ELECTED.

NAME.	CONSTITUENCIES.
PATNA DIVISION.	
1. Mr. Muhammad Yunus ...	Patna Division Muhammadan Urban.
2. Maulavi Saiyid Muhammad Husain.	East Patna Muhammadan Rural.
3. The Hon'ble Khan Bahadur Saiyid Muhammad Fakhr-ud-din.	West Patna Muhammadan Rural.
4. Babu Shyam Narayan Sinha Sharma.	Patna Division Non-Muhammadan Urban.
5. Rai Sahib Ram Gopal Singh Chaudhuri.	Patna Non-Muhammadan Urban.
6. Babu Ganesh Datta Singh ...	East Patna Non-Muhammadan Rural.
7. Babu Mithila Sharan Sinha ...	West Patna Non-Muhammadan Rural.
8. Raja Bahadur Harihar Prashad Narayan Singh, O.B.E., of Amawan.	Landholders', Patna Division.
9. Maulavi Malik Mukhtar Ahmad ...	Gaya Muhammadan Rural.
10. Maharaj Kumar Gopal Sharan Narayan Singh.	West Gaya Non-Muhammadan Rural.
11. Rai Bahadur Kashi Nath Singh ...	Central Gaya ditto.
12. Babu Rameshvar Prashad Singh ...	East Gaya ditto.

PATNA DIVISION—*concld.*

NAME.	CONSTITUENCIES.
13. Maulavi Hafiz Nurul Haqq ...	Shahabad Muhammadan Rural.
14. Maharaja Bahadur Guru Mahadev Asram Prashad Sahi.	Central Shahabad Non-Muhammadan Rural.
15. Babu Rajivaranjan Prashad Sinha	South Shahabad Non-Muhammadan Rural.
16. Babu Dvarika Prashad Singh ...	Arrah Shahabad Non-Muhammadan Rural.

TIRHUT DIVISION.

17. Khan Bahadur Saiyid Ahmad Husain.	Tirhut Division Muhammadan Urban.
18. Maulavi Saiyid Mehdi Hasan ...	Muzaffarpur Muhammadan Rural.
19. Maulavi Letafat Husain Khan ...	Darbhanga ditto.
20. Maulavi Saiyid Mubarak Ali ...	Saran ditto.
21. Maulavi Saiyid Abbas Ali ...	Champaran ditto.
22. Rai Bahadur Dvarika Nath ...	Tirhut Division Non-Muhammadan Urban.
23. Babu Raghubans Thakur ...	North-West Darbhanga Non-Muhammadan Rural.
24. Babu Shiva Shankar Jha ...	North-East Darbhanga Non-Muhammadan Rural.
25. Babu Ram Nihora Singh ...	South-East Darbhanga Non-Muhammadan Rural.
26. Babu Kameshvar Narayan Sinha ...	Samastipur Non-Muhammadan Rural.
27. Babu Mahesvar Prashad Narayan Singh.	North Muzaffarpur Non-Muhammadan Rural.
28. Chaudhuri Raghunandan Prashad Sinha.	East Muzaffarpur Non-Muhammadan Rural.
29. Babu Kapildeva Sahay	West Muzaffarpur Non-Muhammadan Rural.
30. Babu Radha Krishna	Hajipur Non-Muhammadan Rural.
31. Babu Madhaveshvarendra Sahi ...	North Saran Non-Muhammadan Rural.
32. Babu Nirsu Narayan Sinha ...	South Saran Non-Muhammadan Rural.
33. Babu Lakshmi Mohan Misra ...	North Champaran Non-Muhammadan Rural.
34. Babu Ambika Prashad Upadhyaya	South Champaran Non-Muhammadan Rural.
35. Babu Krishnadev Narayan Mahtha	Landholders', Tirhut Division.

BHAGALPUR DIVISION.

	NAME.	CONSTITUENCIES.
36.	Khan Bahadur Saiyid Muhammad Tahir.	Bhagalpur Division Muhammadan Urban.
37.	Khan Bahadur Saiyid Muhammad Naim.	Bhagalpur Muhammadan Rural.
38.	Mr. Shah Muhammad Yahya ...	Monghyr ditto.
39.	Maulavi Mir Faiyaz Ali ...	Purnea ditto.
40.	Mr. Saiyid Moin-ud-din Mirza ...	Kishanganj ditto.
41.	Maulavi Muhammad Umid Ali ...	Santal Parganas ditto.
42.	Rai Bahadur Jyotish Chandra Bhattacharjya.	Bhagalpur Division Non-Muhammadan Urban.
43.	Swami Vidyanand *alias* Bishva Bharan Prashad.	North Bhagalpur Non-Muhammadan Rural.
44.	Babu Bhuvaneshvari Prashad Mandal.	Central Bhagalpur Non-Muhammadan Rural.
45.	Babu Sukh Raj Ray	South Bhagalpur Non-Muhammadan Rural.
46.	Maharaj Kumar Chandra Mauleshvar Prashad Singh.	South West Monghyr Non-Muhammadan Rural.
47.	Rai Sahib Kharag Narayan ...	North-West Monghyr Non-Muhammadan Rural.
48.	Babu Devakinandan Prashad Singh	East Monghyr Non-Muhammadan Rural.
49.	Rai Bahadur Prithichand Lal Chaudhuri.	Purnea Non-Muhammadan Rural.
50.	Babu Jogendra Narayan Singh ...	Santal Parganas North Non-Muhammadan Rural.
51.	Babu Satya Narayan Singh ...	Santal Parganas South Non-Muhammadan Rural.
52	Raja Bahadur Kirtyanand Singh of Banaili.	Landholders', Bhagalpur Division.

ORISSA DIVISION.

53.	Khan Bahadur Shaikh Abdul Majid.	Orissa Division Muhammadan Rural.
54.	The Hon'ble Mr. Madhusudan Das, C.I.E.	Orissa Division Non-Muhammadan Urban.
55.	Babu Birabar Narayan Chandra Dhir Narendra.	North Cuttack Non-Muhammadan Rural.
56.	Babu Rebati Kanta Ghosh ...	South Cuttack Non-Muhammadan Rural.
57.	Rai Bahadur Harendra Narayan Ray Mahashay.	North Balasore Non-Muhammadan Rural.
58.	Chaudhuri Bhaghat Prashad Samantarai Mahapatra.	South Balasore Non-Muhammadan Rural.

ORISSA DIVISION—*concld.*

NAME.	CONSTITUENCIES
59. Babu Pitabas Patnaik	North Puri Non-Muhammadan Rural.
60. Mahanth Gadadhar Ramanuj Das	South Puri Non-Muhammadan Rural.
61. Babu Shankar Prashad Misra ...	Sambalpur Non-Muhammadan Rural.
62. Babu Charu Chandra Ray Chaudhuri.	Landholders', Orissa Division.

CHOTA NAGPUR DIVISION.

63. Khwaja Muhammad Hakim Jan	Chota Nagpur Division Muhammadan Rural.
64. Rai Bahadur Radha Gobind Chaudhuri.	Chotā Nagpur Division Non-Muhammadan Urban.
65. Rai Bahadur Sharat Chandra Ray	Ranchi Non-Muhammadan Rural.
66. Rai Bahadur Gopi Krishna ...	Hazaribagh ditto.
67. Babu Devaki Prashad Sinha ...	Palamau ditto
68. Babu Jyotirmay Chattarji ...	South Manbhum ditto.
69. Dulu Manki	Singhbhum ditto.
70. Babu Shivadas Banarji ...	North Manbhum Non-Muhammadan Rural.
71. Raja Thakurai Girivar Prashad Singh.	Landholders', Chota Nagpur Division.

OTHERS.

72. Mr. Prasanta Kumar Sen ...	Patna University.
73. Mr. P. Kennedy	European Constituency.
74. Mr. Julian Veitch Jameson ...	Planting Constituency.
75. Mr. John Herbert Pattinson ...	Indian Mining Association.
76. Babu Umesh Chandra Banarji ...	Indian Mining Federation.

Members of the Legislative Assembly and the Council of State from Bihar and Orissa.

Council of State.

(*a*) Elected.

CONSTITUENCIES.	NAME.
Bihar and Orissa (Non-Muhammadan).	The Hon'ble Maharajadhiraja Sir Rameshwara Singh, G.C.I.E., K.B.E., of Darbhanga.
Ditto ditto	The Hon'ble Maharaja Bahadur Keshava Prashad Singh, C.B.E., of Dumraon.
Bihar and Orissa (Muhammadan) ...	The Hon'ble Khan Bahadur Saiyid Zahiruddin.

(*b*) Nominated.

The Hon'ble Henry Telford Stonor Forrest, I.C.S.

Legislative Assembly.

(*a*) Elected.

CONSTITUENCIES.	NAME.
Tirhut Division (Non-Muhammadan).	Babu Baidyanath Prashad Singh, Kaliani, Muzaffarpur.
Ditto ditto	Babu Adit Prashad Sinha, Bela House, Darbhanga.
Orissa Division ditto ...	Babu Braja Sunder Das, Chaudhuri Bazar, Cuttack.
Ditto ditto ...	Mr. Bishwanath Misra, Bar-at-Law, Cuttack.
Patna *cum* Shahabad (Non-Muhammadan).	Babu Ambika Prashad Sinha, Patna.
Gaya *cum* Monghyr (Non-Muhammadan).	Rai Bahadur Lachmi Prashad Sinha, Monghyr.
Bhagalpur, Purnea and the Santal Parganas (Non-Muhammadan).	Rai Bahadur Nishikanta Sen, Sen Villa, Purnea.
Chota Nagpur Division (Non-Muhammadan).	Rai Bahadur Sarat Chandra Sen, Vakil, Purnea (District Manbhum).
Patna and Chota Nagpur *cum* Orissa (Muhammadan).	Khan Bahadur Saiyid Muhammad Ismail, Guzri, Patna City.
Bhagalpur Division (Muhammadan)	Maulavi Miyan Asjadullah, Zamindar and Honorary Magistrate, Kishanganj.
Tirhut Division (Muhammadan) ...	Khan Bahadur Sarfaraz Husain Khan, Haveli Begam, Patna City.
Bihar and Orissa Landholders' ...	Raja Rajendra Narayan Bhanja Deo, C.B.E., of Kanika, Kanikarajbati, Cuttack.

(*b*) Nominated.

Rai Bahadur Shyam Narayan Singh, M.B.E.

Rai Sahib Lakshmi Narayan Lal.

APPENDIX III.

GOVERNMENT OF BIHAR AND ORISSA

APPOINTMENT DEPARTMENT.

APPOINTMENT BRANCH.

ORDER No. 4652 A. R.

Ranchi, the 28th October 1922.

Under Rule 2 of the Rules of Business made under section 49 of the Government of India Act, and in supersession of all previous orders on the subject, His Excellency the Governor is pleased to direct that business of the different departments relating to Central and Reserved subjects shall be allotted to the Governor and the Members of his Council as follows:—

HIS EXCELLENCY THE GOVERNOR.

I.—APPOINTMENT DEPARTMENT.

1. Appointments shown in List 1 mentioned in Rule 7 of the Rules of Business.

2. Appointments of members of the Indian Civil Service and to listed posts.

3. His Excellency's personal staff.

II.—POLITICAL DEPARTMENT.

1. Darbars and Titles.

III.—REVENUE DEPARTMENT.

1. Ecclesiastical Administration; including European cemetries.

NOTE.—His Excellency will deal himself with the expenditure of the grants for the upkeep of Government House.

THE HON'BLE MR. H. McPHERSON.

I.—APPOINTMENT DEPARTMENT

All subjects not taken by His Excellency.

II.—POLITICAL DEPARTMENT.

All subjects not taken by His Excellency.

III.—REVENUE DEPARTMENT.

The whole, except the subjects allotted to the Hon'ble Mr. Sinha.

IV.—Education Department.

1. Chiefs' Colleges.
2. European and Anglo-Indian Education.

V.—Public Works Department.

1. The disposal of vacant sites, being the property of Government in the New Capital at Patna and elsewhere.
2. The administrative charge of Government residences in the New Capital, Patna and at Ranchi.
3. The administrative charge of the Secretariats at Patna and at Ranchi.
4. The administrative charge of the Legislative Council Chamber at Patna.

THE HON'BLE Mr. SACHCHIDANANDA SINHA.

I.—Revenue Department.

1. Provident Assurance and Life Assurance Companies.
2. Joint Stock Companies.
3. Census.
4. Books, Periodicals and Newspapers.
5. Circuit Houses.
6. Administration Report.
7. Libraries, including Secretariat Library.
8. Supply of Publications.
9. Archæology.
10. Treasure Trove.
11. Languages and Linguistic Survey.
12. Ethnology and Ethnography.

II.—Judicial Department.

The whole.

III.—Finance Department.

The whole.

IV.—Education Department.

Reformatory Schools.

V.—Municipal Department.

Control of Motor Vehicles.

VI.—Public Works Department.

The whole, except the transferred subjects and the subjects allotted to the Hon'ble Mr. McPherson.

By order of His Excellency the Governor.

G. RAINY,

Chief Secretary to Government.

APPENDIX IV.

His Excellency the Viceroy's reply to the Addresses from the Bihar Landholders' Association and the Bhumihar Brahman Sabha delivered at Patna on 11th December 1922.

Gentlemen,

I thank you very warmly for your kind address of welcome to me and which you have extended also to Her Excellency.

I assure you that it is a source of great pleasure to me to pay even this brief visit to the capital of the Province of Bihar and Orissa. For on historical, religious and other grounds this Province appeals to the imagination with no common interest. History has taught us about the old civilizations and Empires that held sway here. Within your boundaries pilgrims flock to the sacred places, such as Budh Gaya and Jagannath, which are so closely associated with two of the dominating religious systems of the East.

Patna holds a special interest for the British as one of the early trading outposts of the great English company which grew to fame in Calcutta. Though Patna suffered an inevitable decline in trade when railways took the place of rivers as the great arteries of commerce, its ancient importance and prestige has now revived since its rebirth, by His Majesty's command, as the metropolis of a new province. Bihar and Orissa have another additional interest in being the first British Indian Province of which an Indian was appointed to hold charge as Governor under the Governor-General and the Crown. Lastly as the home of coal and iron and mineral wealth this province will attract increasing attention in the future.

The life of your young province has not been without its difficulties. Before its creation you relied on Calcutta and Bengal for all large provincial institutions such as Universities, Medical, Engineering and other technical colleges. Bihar and Orissa has now had to attempt to create all these necessary and beneficent institutions afresh. There has in consequence (in spite of the fact that the Central Government take no contributions to central revenues from this province) been a serious disproportion between your finances and your needs. I deeply sympathise with your difficulties and with your feeling of disappointment that lack of funds is retarding progress and denies to you amenities and advantages which more fortunate neighbours enjoy; but I feel confident that with care and vigilance and with co-operation between all classes, under the able guidance of your Governor, you will be empowered to advance and by judicious management to bring to fruition those objects, on the attainment of which you have so rightly set out.

I will now turn to subjects more closely connected with the Associations which you represent. I will say in the first place that I deeply value an address from your Associations because they are composed of the great Zamindars and the landlord community of this province. I appreciate the great value of their loyalty to the Crown and of their support to the administration at all times and more particularly in the Great War; and I assign a high place to their influence both in the past and future as an important and stabilizing element in the history of this province. Under the reformed constitution the future of your province in many matters lies to a large extent in the hands of the enlightened classes in the province. Your class has a great position and great responsibilities. I have confidence that you will devote yourselves with increasing energy to shouldering the burden of your obligations—the promotion of the well-being of the people of Bihar and Orissa,—in a manner worthy of your status and position; and I pray that in this task you may be rightly guided and that you may also be enabled to educate and prepare your sons to take your place in the fulness of time in the execution of the noble mission which you have inherited.

You have alluded to the tenancy legislation which will shortly engage the attention of your Legislature. Some of you who are present here today joined in an address to me in March last and will recollect what I said on this subject on that occasion. I would remind you on the one hand that it is on the welfare, prosperity and contentment of his peasantry that the position, wealth and influence of a great landlord depend. On the other hand the tenant class must not forget that their interests are largely wrapped up in those of their landlord; and that any serious disintegration in the position of the landlords or disturbances in the relation between them and the landlords may have disastrous and far-reaching effects not only on the landlords but on the tenants themselves, which the latter may scarcely be able to visualise; but which are familiar enough to students of these evolutions. Economic and other changes must inevitably lead to desire for readjustments and this is the reason of the legislation now in contemplation; I realise that these readjustments often cause friction and misunderstanding; but I am confident that these can be readily overcome if both parties approach the subject in a spirit of trust, with a desire for mutual understanding and for the subsistence of amicable relations of ancient standing. It is only right and fair that in the first place the provisions of tenancy law, where defective, should be placed on an equitable footing and in the second place that in any such process due regard should be paid to long-standing rights and privileges of landlords. I trust that it will be in this spirit that you will bring your agrarian legislation to a successful conclusion. Gentlemen, I thank you again on behalf of myself and of Her Excellency for your welcome.

APPENDIX V.

Table of number of primary schools and of boys attending them.

Name of District.	Population.	Number of primary schools for Indian boys.		Number of pupils in primary schools for Indian boys.		Percentage of children of school to those of school-going age.		Number of literates as shown in the census.	Percentage of literates to population.
		1916-17.	1921-22.	1916-17.	1921-22.	1916-17.	1921-22.		
Patna	1,774,287	1,284	1,279	35,267	35,740	23·1	21·2	137,038	8·70
Gaya	2,152,930	1,537	1,624	45,560	47,780	17·8	18·2	112,528	5·23
Shahabad ..	1,816,821	959	1,002	29,183	30,400	15·2	15·4	80,551	4·03
Saran	2,330,953	1,088	783	31,880	22,169	12·6	9·1	101,237	4·32
Champaran ...	1,940,841	810	619	20,444	16,180	9·6	8·9	59,013	3·04
Muzaffarpur ...	2,754,945	1,239	1,229	35,139	35,845	11·3	10·9	110,613	4·01
Darbhanga ...	2,913,529	1,498	1,393	50,551	40,339	15·8	13·4	122,742	4·31
Monghyr ...	2,029,935	1,345	1,350	34,405	38,200	14·8	16·9	100,668	4·05
Bhagalpur ...	2,033,770	1,096	1,069	31,550	32,531	13·5	15·0	100,493	4·02
Purnea ...	2,024,608	990	1,202	25,803	31,606	11·2	13·3	63,527	3·12
Santal Parganas ...	1,798,639	992	1,088	30,042	35,047	14·04	15·4	52,099	2·89
Cuttack ...	3,034,678	3,235	3,071	83,983	80,415	30·1	29·3	153,690	7·44
Balasore ...	980,501	1,606	1,434	42,958	38,053	32·0	30·2	73,133	7·45
Puri	951,651	1,531	1,320	31,083	28,248	25·6	24·2	58,369	6·13
Sambalpur ...	789,466	332	370	14,175	14,035	14·5	13·5	29,826	3·77
Angul	182,524	229	332	8,048	8,024	34·02	33·2	4,786	2·62
Hazaribagh ...	1,273,946	663	644	17,230	16,603	11·3	10·6	38,804	3·03
Ranchi ...	1,334,473	1,142	1,169	28,338	29,158	17·8	19·2	46,445	3·48
Palamau ...	733,304	360	253	9,049	6,018	11·3	8·1	20,302	2·76
Manbhum ...	1,548,777	1,036	1,038	30,013	31,175	15·4	16·0	81,327	5·89
Singhbhum ...	759,438	382	347	11,135	11,004	14·0	13·2	30,067	3·9
Total ...	34,002,180	23,274	22,443	649,345	629,500	16·3	15·7	1,586,357	4·66

APPENDIX VI.

THE RADIUM INSTITUTE,

RANCHI.

This Institute has now been opened and I am asked to submit a note on it, its value, its future, its working, and its scope of work generally and I gladly take the opportunity of submitting a report.

Of the value of such an Institute in India I have long been convinced. Practically every country in Europe has its medical profession furnished with radium and radiological equipment and America, England and France lead the way in radium work. It was in 1901 that radium was first used in France in medicine in the treatment of cutaneous tuberculosis and since then its use has spread to other countries and has been extended to other diseased conditions. In late years it has not only been used in all conditions of growths benign and malignant, viz., cancerous and non-cancerous growths, but it has been employed in many other conditions, such as diseases of the spleen and blood-forming organs, menstrual disorders, goitres, Grave's disease, skin diseases of various kinds, chronic ulcerations, the removal of disfiguring scars and birth-marks, etc., and among its latest uses may be included its employment in chronic conditions of the tonsils and in immature cataract. Such then is some indication of the range of usefulness of this very remarkable substance.

With all this naturally, experience of its usefulness has varied and many vexed questions have arisen in regard to its employment, and as to its real range of usefulness. Some have been enthusiastic, others pessimistic, others luke-warm regarding its virtues, and a careful study of the literature of the subject forces one to the conclusion that the failures and successes with radium have among other things depended on certain groupings of technical details, which simply means that in the first place we do not know all that there is to be known of radium and its properties and action on living tissues, and that as our mastery of technical detail improves so will the nett result of our work with it in disease be more and more really useful. As things are, results are being obtained now in radium and radiological work generally, that were simply impossible a few years ago, and the best successes of the early days of radium work are indicating the directions in which our future work will lead to success. The absolute truth of the doctrine laid down by Wickham, one of the greatest pioneers in this work, is being daily substantiated and his doctrine was " Plenty of radium and plenty of experience "

and the greatest successes with radium are being achieved by those Institutes which have the largest supplies of radium and can treat their cases with the largest ranges of dosage. I do not propose in this note to enter into any thing purely technical but would only in passing insist on this one point that it is futile to attempt to treat cases suitable for radium treatment with quantities of that substance insufficient for the particular case under treatment, and that most failures have depended on a want of realization of this special condition. There have of course been other causes of failure also but this has been a principal cause in the opinion of most workers of experience. And because of failures many have arisen as opposed to the value of radium and of radiological treatment generally especially in cases of cancer. Quite recently Dr. John B. Deaver in his presidential address before the American College of Surgeons, Philadelphia, in October 1921, has sharply questioned the curative value of radium in the treatment of malignant disease. His remarks, coming from a man occupying his unique position in the profession, have excited a great volume of comment from all over the world, a small number upholding his view, a few admitting their inability to judge of the matter, and the greatest number standing strongly against Dr. Deaver. In the course of an address on "Old methods *versus* new in surgical diagnosis" Dr. Deaver made the statement that "at times when its use could have been most valuable radium failed utterly in the treatment of cancer. I almost hesitate to express the fear I have that nothing can be looked for from radium in the future to be of advantage in the treatment of cancer." Such a pronouncement from the newly inducted president of so strong a professional body as the Amercian College of Surgeons might well be estimated as one of the heaviest attacks possible by any one man against the value of radium. But his remarks were followed by an almost death-like hush that came over the audience of nearly 2,000 Surgeons gathered from all parts of the country and from Europe who were seated in the room. Almost apologetically Dr. Deaver recited instances where radium had failed when relief was most sorely needed. Its benefit he declared had been practically negligible and in many cases it was found to work more harm than good. I quote all this purposely because following such action as that of Dr. Deaver it is perfectly certain that there will be many whose opinion will be biased by the admittedly obvious failures of radium in many instances. Let us at once admit that there have been failures, for there have been failures and disappointments, and as Dr. Deaver's address has got into the lay press it is impossible to pass it by in a note of this nature but as has been said by one of the Directors of the Belle Vue Hospital and one of the leading physicians of New York: "The type of publicity which has been given to the speech made by Dr. Deaver to a body of medical men is unfortunate and may do great harm." The public is not in a position to understand a problem of such technicality and complexity. Other American professional opinion is less sparing in its attidute towards Dr. Deaver. Dr. Lincoln Furbush, Director of the Department of Public Health, defends

the purchase of radium by New York City and says " it was one of the most progressive steps ever taken by a municipality. I said radium was not a cure-all but had a most positive place in progressive medicine. The city of New York purchased two grammes of radium sometime ago (£230,000) and is now buying two grammes more ". And Dr. Frank Simpson, the leading exponent of radium work in Chicago, says bluntly: " Such a statement is little short of criminal. There are hundreds of cases on record where radium has effected a permanent cure, Dr. Deaver should come west for a few days then he would issue a retraction. "

Radium and its auxiliary X-Rays are not a cure-all and many vigorous attacks, and unjustifiable attacks have been made on it. Perhaps the most powerful answer to all attacks up to date has been made in this recent controversy by Dr. Gaylord, President of the American Association for Cancer Research, when he said: " This is no time to raise the question whether or not radium is more efficacious than surgery in the treatment of cancer. Radium has cured cases of cancer which the surgeon could not help. In other cases far advanced, radiation has lengthened life, relieved suffering and helped where the patient has been beyond assistance from surgery. Dr. Deaver found it possible to dispose of radium treatment of cancer by saying ' it is doomed '. I should like to ask him in the name of humanity what he would put in its place. What is he going to do for those suffering from cancer, whom the surgeons cannot help?"

Even at the risk of being wearisome I have written at some length on the subject of this controversy and of the present state of divided opinion regarding radiation treatment. I will conclude this portion of my note by quoting one more American Surgeon because my own personal experience is in a humble way precisely similar to his. He said, " I have several hundred living reasons on which my faith is founded and they are walking about on two legs." So much then on the question of radium or no radium.

II. The next question to which I would invite attention is that whereas cancer undoubtedly forms the largest and most difficult section of radium work what may we take as the position of the cancer problem for us?

In one form or other we are often told that we are no nearer the solution of the cancer problem than we were 20 years ago, a statement which is both loose and untrue, for within this period very great advances have been made in our knowledge of and in our treatment of cancer especially in radiation. These matters are mostly purely technical but leaving such special details aside and assuming that radiation has taken " a most positive place in modern medicine ". What is the cancer that we have to deal with in India? It is not generally known that in England and Wales (where registration of causes of death is as good as any where in the world) *of the entire population over the age of* 35 *years, one woman in every eight and one man in every twelve dies of cancer.* Please observe the very significant fact that this takes no account of the deaths from cancer among children and

young people under the age of 35. Now, recent study during the last 20 years has established the fact that cancer occurs in all races of mankind independently of racial peculiarities of diet. What then is the incidence of cancer among the population of this province, or in that of India? And how much of it can our surgeons handle. A very recent statement by the Chief of the Cancer Clinic in the University of Frankfort gives it that 50 per cent. of those who apply for treatment at that Institute are beyond cure, *but radium treatment has given them as much as five years' lease of life.* How have these 50 per cent. come for treatment when beyond cure and why are there also so many " beyond cure " in every country where there is a Radium Institute? To some extent at any rate because they are not recognized early and to some extent because they have not known their condition or have been fearful of the knife or of the ordeal of treatment. It is human nature and with the incidence of cancer in India what can be the number beyond cure? There is in India and every where a certain dread of the real or fancied ordeals of treatment, and specially of the knife, and it is practically certain that in India a considerable portion of those beyond cure would undoubtedly have come forward had they had a treatment to resort to which engendered no special dread. It is quite true that radium offers no absolutely certain cure, but at least it offers relief from symptoms for considerable periods varying in different cases even up to seven years and more. Every man must work out the answer to these questions in his own mind and he can then decide whether in the name of common humanity an institute such as a Radium Institute is worth maintaining and supporting or not. Let him work it out on the figures, one woman in eight and one man in twelve over the age of 35, and I cannot quite tell how many but a very large number besides under the age of 35, and at the very worst let him take half of these and offer them at least the chance of freedom from disease for at any rate some considerable period, anything up to five years, remembering at the same time that we have been working with radium on the present lines for only some dozen years or so and there are patients now living with seven years' freedom from their disease and that some of these are people who were among the worst cases offering for treatment and that most of them were quite beyond the aid of surgery. On this, can there be any doubt in any one's mind that radium though not a cure-all can at least offer a vast amount of relief, and that if like other remedies in other fields of work, it must count its failures, nevertheless it can put up an appeal to common sense and humanity that is at least second to none of similar appeals. And then remember that cancer is not the only thing radium is useful in, and refer once more to the list of ailments given in the earlier part of this note. And if on what I have put forward above it be suggested that I am arguing that radium can take the place of surgery I would say at once that what I advocate is not radium in place of surgery but radiation in co-operation with surgery. And for a report like this I would deprecate entering into any technical discussion and would only urge the fullest collaboration between members of the profession. Let radiologists and surgeons and

physicians work together each to help the other with his patients and we shall find the greatest good achieved for the benefit of humanity.

III. Granting then, that there is plenty of work to do and that radiation is the means to do it with, what is likely to be the future for the Radium Institute. There is only one answer. It depends on our efficiency. I began work with radium in India in 1913. I had but a very small amount which I had purchased myself but I got very good results with it and published them in 1917. Sir Edward Gait gave me some money to purchase some radium " as a preliminary to the establishment of a Radium Institute at Ranchi " and that radium and mine put together were only 50 milligrammes. Sir Edward Gait then bought mine from me and added it to the amount he had provided for the eventual Radium Institute here and these 50 milligrammes have never been idle but they have often proved insufficient, and cases have been left untreated because it was futile to treat them with such small amounts of radium. Then in 1920, on my urgent representation, a scheme was put up for the present Radium Institute and I went home on leave anticipating sanction for my scheme. The sanction and a sum of £10,500 was placed at my disposal. I proceeded to purchase radium and the Treasurer of the Röntgen Society in London (of which I am a member) commented on my modest demand for £8,000 worth of radium telling me that even so small a country as Denmark had just arranged (while he was himself over at a scientific meeting in Copenhagen) for the purchase of £67,000 worth. My purchase of £8,000 worth proceeded to completion and now our total of 550 milligrammes in Ranchi is just as fully occupied as was the 10 original milligrammes, and the latter 50 in 1913-1920, and there are more and more patients applying. I have put them off for the present stating that I have no accommodation for them but the moment we let people known we have room for them we shall be inundated.

The number of cases already treated compare quite favourably with the work of other Institutes having regard to the fact that this is only the beginning of our first year. I think it must be without question that the future of our Institute will depend on our efficiency not merely with regard to the facilities for treatment that we can offer, for, of course, the public will quite understand that under the best of circumstances we can only treat a certain limited number, but we must not only treat with radium or X-Rays but we must be able to deal efficiently with conditions secondary to malignant disease the general falling off in health, the occurrence of conditions where efficient surgical co-operation is necessary. These and like conditions must be provided for. However separate we keep the Radium Institute as an Institution we must co-operate with the Sadr Hospital. I call to mind for instance a case I saw in the Middlesex Hospital of a boy of 15 with a growth in his palate which was so large that it was choking him and the bleeding from which had already endangered his life. Here a timely surgical operation enabled radium to be safely applied and the lad made an excellent recovery. We have of course

just begun and it is hard to forecast requirements at all accurately. But we must provide accommodation to begin with for people of moderate means. Houses in the town are not easy to get and we have already had three cases who have been very badly stranded and one of which had to go back to Calcutta as there was absolutely no place to put her in. On her return there her friends again brought her here to a dharamsala and we have since lost sight of her. It is instances of this kind which will do us harm and it is not as if these occurrences so far could have been helped, but we must not let the idea get about that we cannot take patients. I have recently asked that some of the vacant quarters in Hinu be placed at my disposal. I had asked for six and of these already, in anticipation of sanction, three are occupied and a fourth reserved for another patient. I think we might with advantage have a group of at least a dozen quarters allotted to me and I have already asked for these and I am sure we shall have them occupied.

In my report and working scheme submitted in 1920, I asked for a provision for a 30 per cent. increase in five years, I think it will not be long before we shall need it as regards radium, if our patients increase as they are doing.

IV. As regards the staff and working expenses I think that so long as we work with our present equipment the detail already asked for in my report of 1920, should be sufficient but it will not be too much. All I would ask for is that although we may not at present have entertained more than is actually necessary for *immediate requirements* we shall require the whole of that staff once we move into the new Institute Buildings—and to enable us to get the best results we can, I would urge that our budget grant be placed at our disposal to deal freely with it within its limits.

As regards current work we have had the following detail of cases applying:—

Cancer of bladder	1
Cancer of mouth	1
Cancer of throat	1
Cancer of neck	6
Cancer of uterus (womb)	7
Cancer of breast	1
Cancer of liver	1
Cancer of upper jaw	1
Keliod	1
Fibroid tumour of uterus	4
Tubercular glands of neck	1
	25

Our first treatment was that applied in Darjeeling on the 21st April 1922, and our first in Ranchi was applied on the 30th of May 1922. This is therefore practically two months' work to 21st June 1922.

Of these two have died, four have not been treated at all, two for want of accommodation when they applied and two as unsuitable for any treatment, and the remaining 20 are still actually under treatment and all but the most recent are already showing improvement, and some of them very definite improvement. And seeing that with the exception of the Uterine Fibroids they are all inoperable, the record so far is not at all a bad one. Some of these cases have been treated free. The remainder have so far contributed Rs. 970 in fees for radium which sum has been credited to Government in the Ranchi Treasury. Of this sum, however, Rs. 500 was paid in by one European patient whom I visited and treated in Darjeeling. As work goes on I anticipate from our radium cases alone a steady return on much the same scale, viz., an occasional big contribution and for the rest about Rs. 200 or less a month but to continue to do this we must, as I have said above, do all in our power to make our patients comfortable and treat them efficiently, and for that end we must make sure of our equipment and staff being up to date and in good order and we must provide accommodation for patients of moderate means.

As regards the Ranchi Sadr Hospital we are working quite separately from them but I am quite prepared to give any of their cases the full benefit of the radium and X-Ray equipment at our disposal as occasion arises, and from time to time cases will come into the Sadr Hospital whom we can and shall quite readily treat there, and there is one such case there now under treatment. As far as radium treatment is concerned there will of course be one limitation and that is the limit to which we can satisfactorily work our equipment, for it will be of no use dividing our radium in such a way that patients get doses which are insufficient. Of malignant diseases alone we shall hardly be able to treat much more than 25 to 30 cases at one time and we shall take on new comers as the old cases retire after treatment. And it would be a great point gained for the work's sake if we could arrange to keep in touch with some of these patients and follow up their progress after treatment. Malignant disease is by no means the only condition that radium benefits and it is rather a pity though perhaps natural that at the starting of our work we are put up so much as " a cancer Institute ". We are now treating cases that are not cancer and I should be only too glad when it gets more widely known that cancer work is only one of our objectives.

Another matter put forward at the beginning was that the Institute should train Assistant Surgeons and other Medical Officers in X-Ray and Radiological work and that it should for this province take the place of the X-Ray Institute at Dehra Dun. This can be done once the Institute buildings have been opened and are in full working order. Of course our patients will to some extent have to be used for demonstration and for this purpose again we should co-operate with the Sadr Hospital, so as to have some teaching material besides the few among our own patients who would not object to being shown to medical men attending the course. The course of training would last two or three months and would include a curriculum much the same as that prescribed at Dehra

Dun with the addition of lectures and demonstrations on work with radium. I hope therefore that once we are installed in our new buildings we shall prove an Institution definitely useful to our province and to our neighbours both in training our own staff in the province and in giving our medical men both in the service and in private practice, opportunities of working with us and seeing our work and satisfying themselves from their personal contact with and experience of it, that it has a very varied and a very definite field of very practical utility. When medical men in practice see our work more we shall get their co-operation for a very much wider range of work than that which we now have and we shall, I hope, really prove what I am firmly convinced of, that the Government of Bihar and Orissa are really to be heartily congratulated on being the first in the field in India with an Institute equipped with not only X-Rays but also with radium. And I would urge that those who are charitably-minded in the province be invited to add to our stock of radium and thereby increase our real efficiency.

J. C. VAUGHAN, Lt.-Col., I.M.S.,
Superintendent, Radium Institute, Ranchi.

APPENDIX VII.

Census figures.

District or State.	Area in square miles.	Towns.	Villages.	Population in 1921.			Total population in 1911.
				Urban.	Rural.	Total.	
Bihar and Orissa ...	111,809	81	104,239	1,410,070	36,551,788	37,961,858	38,434,753
(1) British Territory ...	83,161	75	84,814	1,374,765	33,627,424	34,002,189	34,489,544
Patna Division ...	11,140	30	13,054	433,866	5,111,172	5,544,038	5,632,682
Patna	2,063	6	2,319	218,895	1,355,392	1,574,287	1,606,012
Gaya	4,714	8	6,031	112,665	2,040,265	2,153,930	2,161,010
Shahabad ...	4,373	6	4,704	101,306	1,715,515	1,816,821	1,865,660
Tirhut Division ...	12,598	14	14,160	260,376	9,688,892	9,949,268	9,973,011
Saran	2,083	3	4,341	62,463	2,377,490	2,339,953	2,289,430
Champaran ...	3,531	2	2,554	38,119	1,902,722	1,940,841	1,908,385
Muzaffarpur ...	3,036	4	4,088	67,195	2,687,750	2,754,945	2,845,514
Darbhanga ...	3,348	5	3,177	92,599	2,830,930	2,913,529	2,929,682
Bhagalpur Division ...	18,613	17	20,930	270,811	7,616,171	7,886,982	8,146,736
Monghyr ...	3,927	6	2,703	112,845	1,917,130	2,029,905	2,135,000
Bhagalpur ...	4,236	2	3,820	74,291	1,959,479	2,033,770	2,139,318
Purnea ...	4,998	4	4,177	41,537	1,983,071	2,024,608	1,980,637
Santal Parganas ...	5,462	5	10,156	42,138	1,756,501	1,798,639	1,882,781
Orissa Division ...	13,736	9	15,085	174,449	4,704,424	4,968,873	5,131,753
Cuttack ...	3,654	3	5,629	76,036	1,988,042	2,064,078	2,109,139
Balasore ...	2,085	2	3,485	35,213	945,292	980,504	1,055,568
Angul	1,681	...	1,562	...	182,574	182,574	199,451
Puri	2,492	1	3,040	38,694	912,957	951,651	1,023,402
Sambalpur ...	3,824	3	1,969	23,907	765,569	789,466	744,193
Chota Nagpur Division	27,065	15	20,985	236,263	5,416,765	5,653,028	5,605,362
Hazaribagh ...	7,021	3	6,168	44,159	1,232,787	1,276,946	1,288,609
Ranchi ...	7,102	3	3,676	51,815	1,282,658	1,334,473	1,387,073
Palamau ...	4,916	2	3,130	19,443	713,951	733,394	687,710
Manbhum ...	4,147	4	4,808	40,364	1,502,413	1,548,777	1,547,576
Singhbhum ...	3,879	3	3,013	74,482	684,956	759,438	694,394
(2) Feudatory States ...	28,648	6	19,425	35,305	3,024,364	3,059,669	3,045,209
Orissa States ...	28,046	6	18,543	35,305	3,771,867	3,807,172	3,796,563
Chota Nagpur States	602	...	882	...	152,497	152,497	148,646

APPENDIX VIII.

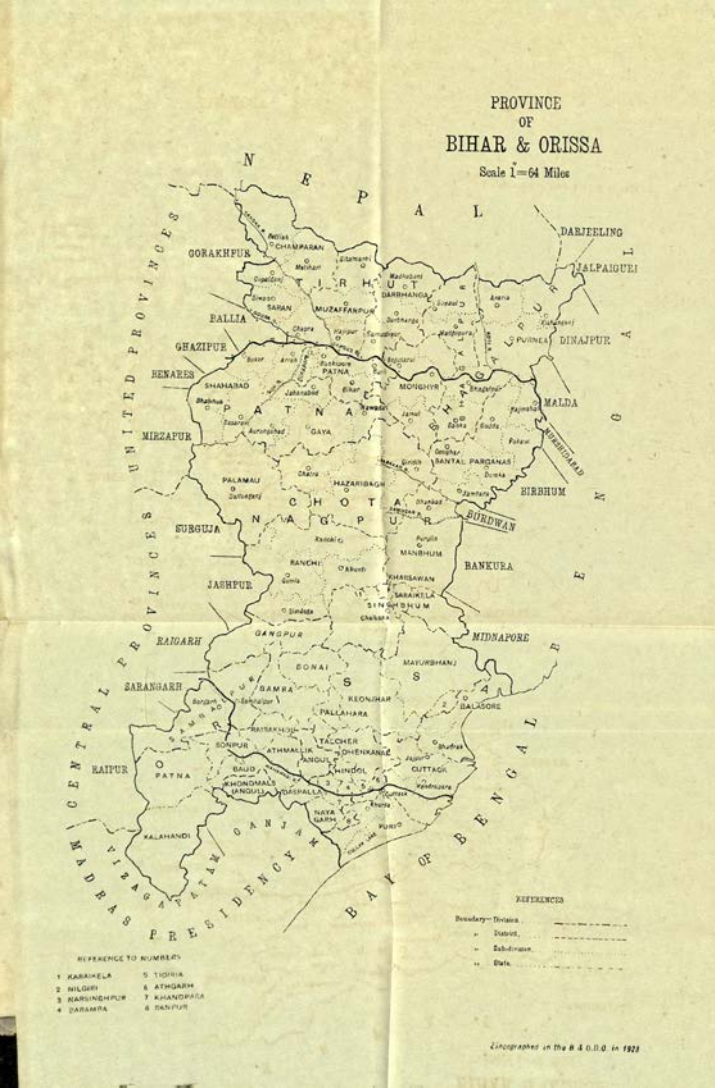
Statement of political cases for the year 1922.

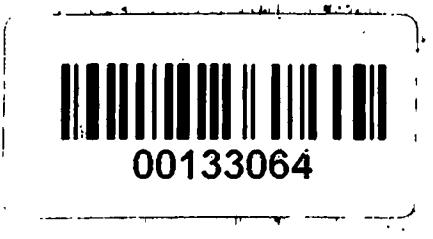
	Cases.				Persons concerned.					Remarks.
	Total number.	Number convicted.	Number pending.	Number acquitted.	Total number.	Number convicted.	Number acquitted.	Number pending.	Number absconding.	
Sections 124-A and 153-A, Indian Penal Code.										
1st half year 1922 ...	5	5	...	...	6	6	...	...	...	One case shown in the Administration Report for 1921 as the occurrence took place that year, but convicted in 1922.
2nd „ „ ...	1	1	...	...	1	1	...	...	...	
Section 124-A, Indian Penal Code.										
1st „ „ ...	2	2	...	...	2	3	...	...	...	Ditto ditto.
2nd „ „ ...	8	8	...	...	0	0	...	...	...	
Section 153-A, Indian Penal Code.										
1st „ „ ...	1	1	...	...	1	1	...	...	...	This case was shown in the Administration Report for 1921 as the occurrence took place that year but convicted in 1922.
2nd „ ...	...	...	...	...	...	...	...	...	...	
Section 108, Criminal Procedure Code.										
1st „ „ ...	15	12	3	...	17	14	3	...	...	Discharged on furnishing undertaking of good behaviour.
2nd „ „ ...	0	0	1	2	0	0	1	2	...	Discharged with a warning.
Criminal Law Amendment Act.										
1st „ „ ...	67	55	0	3	396	220	73	3	2	
2nd „ „ ...	2	1	...	1	5	1	...	4	...	

PATNA

SUPERINTENDENT, GOVERNMENT PRINTING, BIHAR AND ORISSA

GULZARBAGH.


PROVINCE
OF
BIHAR & ORISSA
Scale 1"=64 Miles
N E P A L
DARJEELING
JALPAIGUEI
GORAKHPUR
CHAMPARAN
TIRHUT
DARBHANGA
PURNEA
DINAJPUR
SARAN
MUZAFFARPUR
BALLIA
GHAZIPUR
BENARES
SHAHABAD
PATNA
MONGHYR
MALDA
PATNA
MIRZAPUR
GAYA
MURSHIDABAD
SANTAL PARGANAS
PALAMAU
HAZARIBAGH
BIRBHUM
CHOTA NAGPUR
SURGUJA
BURDWAN
RANCHI
MANBHUM
BANKURA
JASHPUR
KHARSAWAN
SARAIKELA
SINGHBHUM
RAIGARH
GANGPUR
MIDNAPORE
SARANGARH
BONAI
MAYURBHANJ
BAMRA
KEONJHAR
BALASORE
PALLAHARA
SONPUR
TALCHER
DHENKANAL
RAIPUR
PATNA
ATHMALLIK
ANGUL
BAUD
HINDOL
CUTTACK
KHONDMALS
ANGUL
DASPALLA
NAYAGARH
PURI
KALAHANDI
GANJAM
VIZAGAPATAM
MADRAS PRESIDENCY
BAY OF BENGAL
UNITED PROVINCES
CENTRAL PROVINCES
REFERENCES
Boundary—Division
" District
" Subdivision
" State
REFERENCE TO NUMBERS
1 KARAIKELA
2 NILGIRI
3 NARSINGHPUR
4 PARAMPA
5 TIGIRIA
6 ATHGARH
7 KHANDPARA
8 RANPUR
Lithographed in the B. & O.R.O. in 1923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